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VI.—*Altitudes of Places in Kumaon*. By Capt. W. S. Webb, E.I.C.S.

A LIST of Latitudes, Longitudes, and Altitudes of many Places in Kumaon, has appeared in the 'Asiatic Researches,' presented to the Society by Lord Hastings, for whom a short Memoir of the Survey was drawn up in 1817, while the work was yet in progress. Perhaps this publication was premature; but be that as it may, it was clearly indicated in the memoir itself that two corrections would eventually be required; the one affecting *all* the longitudes, and the other all the *geometrically-deduced* elevations in that list.

The longitude of Péléebheet, as given by Mr. Reuben Burrow,  $79^{\circ} 41' 45''$  E. was taken, *pro tempore*, as the first meridian of the survey, though well known to err in defect seven or eight minutes; and I take the present opportunity of mentioning that the correction in longitude  $+ 8' 39''$ , which has been adopted in the map, is applicable to all the longitudes given in the 'Asiatic Researches,' including Péléebheet.

In the second place, and which is more immediately connected with my present purpose, the altitude of Kasheepoor (upon which as the zero of my observations, all the geometrically-deduced elevations in the survey are based,) was assumed from a mere estimate to be 650 feet. But since then many barometrical observations have been made at that place, (as will be seen in the annexed Table,) the mean result giving 722 feet for the difference of elevation between Mr. A. Colvin's house at Calcutta, and the station at Kasheepoor. The heights inserted in the map have been thus increased seventy-two feet, the correction indicated, which is also due to every altitude, as given in the 'Asiatic Researches,' if obtained by *geometrical* process. The height of Mr. Colvin's house above the level of the sea, though probably not much less than 100 feet, has not been taken into consideration, and the altitudes given in the following Table are those above Calcutta.

Having been occasionally referred to upon the subject, it seems desirable to place the whole of the barometrical observations made in Kumaon upon record, that the traveller in the mountains may have an easy mode of access to them, whether merely to gratify his curiosity, or for any purpose of utility.

It was not until a late period of the survey that barometers in serviceable condition were obtained, though neither trouble nor expense were spared to procure them; all were broken upon the road, until, in April, 1817, being then in camp at Gungolee-Hath, I received from a friend a portable barometer by Ramsden. The instrument was originally intended for measuring such heights as occur in Great Britain. I managed, however, to get the scale lengthened downwards by a native workman; there was no contrivance for viewing the surface of the mercury in the reservoir from without, or of adjusting it to the beginning of the scale. The irregular form of the interior of the reservoir,—a cylinder having a broad and shallow cup at either extremity,—rendered it extremely difficult to be

gauged. Near the upper surface, 13 inches in the tube were equivalent to only  $\frac{1}{10}$  of an inch in the reservoir.

It was subsequently ascertained, by comparison with a barometer of the best description, that the tube had been truly filled, and the scale precisely adjusted. All the observations, from No. 1 to No. 138, inclusive, were made with this instrument only, and must be considered *approximate* results. In computing the altitudes from these, no equation has been applied to correct the place of the zero point, and that usually added to the length of the column of mercury in the lower temperature (to compensate for expansion,) has also been omitted. The one being always additive to, and the other, almost without exception, subtractive from the *result*, have a tendency, *pro tanto*, to compensate for each other.

At the time these observations commenced, no corresponding series at Calcutta was procurable, I was, therefore, obliged to adopt the mean height of the barometer and thermometer at noon, for each month of the year, as inferred from the Meteorological Diaries, which had been formerly kept at the Presidency and published in the 'Asiatic Researches,' in lieu of correspondent observations. The variations to which these are liable in different years in Bengal are so small, that they might indeed be used without risk in all cases where very great accuracy is not required. The altitudes themselves, as far as subsequent observations made with better instruments show, appear to be generally a little in defect; but upon the whole, I am of opinion that the difference between the approximate altitudes here given, and those which could have been obtained by the best barometer, and more rigorous computation, all other things remaining the same, will rarely, if ever, exceed 100 feet.

In the spring of 1818, I obtained a supply of five barometers of the best description, and in perfect order from Europe. Four of them were constructed so as to admit of the adjustment of the zero point; and the fifth, a small instrument of Sir H. Englefield's pattern, required an equation of  $\frac{1}{50}$  in lieu of that adjustment. Among the observations which follow, those marked (*a*) were made with the latter instrument exclusively, and the value of the equation just mentioned is included in the *last* column.

About this time I heard that Mr. Alexander Colvin, of Calcutta, kept a Meteorological Diary, and having made application to him upon the subject, he most kindly consented to supply me, monthly, with a copy. This gentleman's diary was kept with such undeviating regularity, and was transmitted to me during the residue of my survey with such punctuality, as to render it invaluable for my purpose; and his polite and liberal attention demands my grateful acknowledgment. I am also indebted to Major General Hardwicke for occasional extracts from his diary kept at Dum-dum.

Generally speaking, I have preferred taking the mean of the Calcutta observations for five days, to that immediately corresponding with my own. Thus, an observation made in the mountains on the 10th of any month, would be computed with the mean of those by Mr. Colvin on the 8th, 9th,

10th, 11th, and 12th. I feel convinced, that almost every instance, in which any material discrepancy appears in a result deduced from more than one observation, the error is attributable to the "Equation for Temperature," the theory being, I believe, generally considered imperfect.

In steady weather, series of observations gave the same results, as nearly as possible, though made at very different seasons of the year. But the continual travelling about, which the survey required, seldom permitted observations to be made in a continued series, and made it unavoidable to register a great number which were taken when the weather was unsettled. A fall of rain will often, in particular situations in the hills, depress the temperature 10 or 15 degrees in a few hours, a circumstance which does not occur in Calcutta, though similar weather be experienced, and this, if it be a lofty station, seriously affects the altitude. The barometer meanwhile seldom varies, as dependent upon rain or even snow, and any trifling alteration which may take place in that instrument, is often contrary to what might be expected from a diminution of temperature.

The unequal variations of temperature at places *within* the mountains, and near to each other,—if differing considerably in altitude,—is still more remarkable; and corresponding simultaneous observations at two such stations would give results fluctuating between extremes more widely removed, than would limit the differences apparent in the calculations if separately compared with the Calcutta observations. The tendency of the barometer to rise and fall (at every place where I have had an opportunity of observing it for several days together) appeared to me to correspond, almost precisely, and from day to day, with the Calcutta instrument; the *general changes* of temperature are analogous also. Such instances, as I have alluded to above, are to be considered as exceptions only.

Upon the whole I am of opinion that if a series of barometrical levels could be carried on step by step from the plains to the passes of the Himalaea, (which by the way would exclude all other business,) and with that account, unavoidably, every individual error accumulated from unequal variations of temperature, and a multiplicity of other causes, the ultimate object of inquiry would not be attained with nearly an equal degree of precision to that derived from comparing *directly* the last observation of the series with one correspondent at Calcutta. By the latter mode no error is extended to a second station; and, as the barometer in India is not affected by changes of weather, &c., as in places more distant from the Equator, and as its diurnal and annual variations in the hills correspond with those observed in Calcutta, the *distance* between the places of observation furnishes of itself no argument that I am aware of, unfavourable to the greatest accuracy which this instrument is competent to afford.

In such a multitude of figures there must inevitably occur many errors, and the more so, as not one of the results have been ever recomputed, or examined by a second person. The state of my health precludes me from executing now any extensive revision, and I can only express a hope that the inaccuracies may not prove unreasonably numerous.

COMPUTATION OF THE ALTITUDES.

The altitudes from No. 1 to No. 138 inclusive, have been computed according to a rule given in the pamphlet usually delivered with Sir H. Englefield's portable barometer, descriptive of the use and application of that instrument.

The residue are calculated by the formula contained in a small but useful publication, entitled 'A Companion to the Mountain Barometer,' by Mr. Thomas Jones, optician, of Charing Cross.

The following are a few examples of the latter class, given somewhat more at length. In every case, where it was possible to do so, the observation was delayed until the instrument had taken the temperature of the atmosphere; and in the Calcutta observations no registry of the detached thermometer is included.

Date.	Place of Observation.	Barom. Mean.	Therm.		Place of Comparison.	Barom.	Therm.
			A.	D.			
1818			°	°			°
Feb. 19	Kasheepoor(Factory)	29·04870	70	70	{ Calcutta, Mr. Colvin's house }	29·85	73
,, 20	,, ,,	·01668	68		,, ,,	·91	72
,, 21	,, ,,	·16868·5	68·5		,, ,,	·94	78
,, 22	,, ,,	·13868	68		,, ,,	·91	78
,, 23	,, ,,	·10966	66		,, ,,	·96	80
	Mean .	29·096	68·1	68·1		29·914	76·2
		Centigrade 20°				Centigrade 24·5	

B.	H.	A.	D.
		°	°
29·914	929	24·5	24·5
29·096	..	20	20
+ ·026	..	4·5	44·5
29·122	1628	× ·0058	22·2
	699	·290	3·0
	+ 66·6	·232	66·6
	765·6	·02610	

Altitude of Kasheepoor Factory Bungalow, 765·6 feet,—See No. 142.

## II.

At Keoonlung, a halting ground, near Neetee Pass, mean of Two Days' Observation, on the 20th and 21st of August, 1818.—See No. 263.

B.	H.	A.	D.
29·485	1,305·5	26·1	26·1
17·542	..	11·	11·7
·050	..	14·4	37·8
17·592	14,762	·0035	18·9
	13,456·5	720	57·5
	1,086·75	432	945
	14,543·25	·05040	1323
			945
			1086·75

Altitude of tent at Keoonlung, 14,543 feet.

## III.

August 21st, 1818, an Observation, at Crest of Neetee Pass, compared with the Barometer at Keoonlung, one hour and a quarter afterwards.

	B.	H.	A.	D.
	17·542	14,837	12·2	12·2
	16·270	..	8·3	8·3
	·013	..	3·9	20·5
	16·283	16,778	·0033	10·25
		1,941	117	8·3
		+85·08	117	3075
Diff. Altitude =		+2,026·08	·01287	8200
Keoonlung .. =		14,543·25	..	85·075
Altitude .... =		16,569·33		

Altitude of Neetee Pass, 16,569 feet. See No. 264.

IV.

Crest of the Pass compared with Major General Hardwicke's Diary.

B.	H.	A.	D.
29·51	1,283	<sup>o</sup> 28·5	<sup>o</sup> 28·5
16·27	..	8·3	8·3
·065	..	20·2	36·8
16·335	16,694	·0032	18·4
	14,411	404	65·9
	1,212·56	606	1656
	16,623·56	·06464	920
			1104
			1212·56

Altitude of Neetee Pass, 16,624 feet. See No. 265.



V.

At Sireenugur Bungalow, 2d October, 1819. See No. 483.

	B	H.	A.	D.
Mr. Colvin's Observation =	29·75	1,072	<sup>o</sup> 31·1	<sup>o</sup> 31·1
	27·948	..	30	30
	·006	..	1·1	61·1
	27·954	2,695	·0056	30·5
		1,623	·00616	6·9
		+ 210·45		2745
		1,833·45		1830
				210·45

Altitude of Sireenugur Bungalow, = 1,833 feet.

## VI.

The same Observation compared with one simultaneous at Paoree, the Altitude of which place, by mean of numerous Observations, is 5,238 feet.

	B.	H.	A.	D.
	27·948	2,701	30	30·
	24·685	..	20·6	20·6
	·046	..	9·4	50·6
	24·731	5,887	·0049	25·3
		3,186	846	13·6
		+ 344·08	376	1518
Below Paoree.. =		-3,530·08	·04606	759
Paoree ..... =		5,238		253
		1,707·92		344·08

Altitude of Sireenugur Bungalow, 1,708 feet. See No. 482.

## VII.

A tent near Chundurbudunee Temple, 6th, 7th, 8th, 9th, and 10th of October, 1819.

B.	H.	A.	D.
29·797	1,031	28·9	28·9
23·318	..	19·5	19·5
·044	..	9·4	48·4
23·362	7,371	·0047	24·2
	6,340	658	27
	653·4	376	1694
	6,993·4	·04418	484
			653·4

Altitude of tent, 6,993 feet. See No. 487.



VIII.

The same compared with simultaneous Observations at Paoree, on the 8th, 9th, and 10th October, 1819.

	B.	H.	A.	D.
Chundurbudunee	23·306	7,433	° 20	° 20·
Paoree.....	24·765	..	18·9	18·9
	·005	..	1·1	38·9
	24·770	5,846	·0050	19·4
		+1,587	·00550	6·7
		+129·98		1358
Paoree ...		5,238		1164
		6,954·98		129·98

Altitude of tent, 6,955 feet. See No. 488.

ROUTES

*During which the following Observations have been made with the Barometer to determine the Altitude of Places.*

THE frequent recurrence of places bearing the same name, in Kumaon, would make it extremely difficult for a traveller to identify, in the map, those contained in the following list; many of them could not be inserted there at all for want of space; and the *prodigious number* of names (not easily legible in the original on account of the shading) which are rendered quite unintelligible in the engraved copy, greatly enhances this difficulty, which it is hoped the following clue to the routes, upon which they occur, may tend to diminish.

No. 1. Pokhuree, Lat. 29° 39½' N., Long. 80° 5½' E.

The route leads viâ Bagha Ling Temple, (12,) and proceeds into Juwahîr along the course of the Gorie R. to Milum, (35,) thence returning to Raitee, (44,) turns westerly, crossing Surjoo R. at Soopee-Ford, (60,) SW. to Byznath and Runchoola, (77,) and by Gunna Nath, (83,) to Kalee Muth and Almora. From Kalee Muth E. to Chanee-Soopéh (92) and Sym-Deo, N. to Khurêh, returning by Doongralêkh to Boodha-

Jagésur, (100,) Shem Deo, (111,) SE. by Jindee to Rameshur, (108,) thence returning by Chakhan to Almora. From Almora by Bandunee P. and Thath, (114,) thence SSW. through Beesjoola Purguna (not yet published) to Nanukmuth, (133,) in the Forest Péleebheet and Kasheepoor.

From Kasheepoor, (140, &c.,) by Nujeebabad, (176,) to Kotdwara Pass, (178-9,) Lungoor Fort, (182,) Muha Bulee Temple, (188,) Northward to Oonchakot, (198,) and the Nyar R., (134,) to Oolka, (209.) (Nos. 135, 136, 137, 138, will be found between the two last-named places, being misplaced in List.) The route proceeds to Sireenugur, (212,) crosses the Aluknunda R. through Sindoorree, (213,) Agustmoon-dee, (219,) &c. to Kedar Nath, (228,) thence return by same road to Ookee-Muth, (235,) cross Toong Nath Ridge, (239,) by Gopésur, (242,) to Peepulkotee, (244,) and Josee Muth, (247,) a detour southerly by Pilgoenta Ridge, (250,) to Pana, (252,) back from thence to Toonghasee, (280,) and along the Dhoulee R. to Neetee Pass, (264.) Return by same road to Toonghasee, Josee Muth, (284,) Gopésur, (293,) W. to Nyl and S. to Déothula Temple, (299,) to Agur Peak, (303,) cross Ganges R. at Bumot, (306,) turn westward to Hureealee Temple, (310,) thence viâ Gopheer, (311,) and Bunraree Temple, (318,) to Oolka Gurh, (320,) Sireenugur, (321,) and south to Paoree, (322.) From Paoree ESE. to Kuneoor, (332,) SE. to Tamadhond (338,) and Boodha Kedar, (339,) westerly to Kulwaree, and along course of Saneer R. to Ooklét, thence by direct road to Kotdwara (355,) and the Plains. Re-enter the Hills at Kotdwara, and proceed thence by Bilkhét (388) on Nyar R. and Doomkot-Khal (397) to Paoree.

The next route commences with a circuit between Paoree, Oolka-Gurh, and Soomaree, proceed to Chipul-Ghat R. See Talgaon, (419,) SSE. from Oolka upon that stream. Various traverses upon upper part of Chipul-Ghat R. up to Bunas, (440,) thence the route turns E., passes through Sont, (444,) returning by a circuit to Bunas; thence in a direct line upon Roodur-Prag as far as Biraon, SW. to Déwulgurh, (468,) and by Soomaree (469) to Paoree (472 to 480.)

The next route commences from Sireenugur, (482,) viâ Chundur-budunee, (489,) to Deoprag, (492,) to confluence of Nyar R. with the Ganges, (495,) along the former stream to Bilkhét, (499,) and junction of Chipulghat R. turning NE<sup>y</sup>. to Dhour-Boonga, (501,) NNW. to Doomkot, and thence again ESE<sup>y</sup>. by Choundkot, and Guwanee, (513,) to Déba Temple, (518,) crossing Saneer R. about SbE. of the latter place to Tulaen, (520,) on Lukhor River, thence in nearly same direction to Bunduran, (524,) on Ramgunga R., and crossing the ridge separating that stream from the Kosee R., reach the latter river at Mohan, (525,) follow its stream to the Plains viâ Dhekulee, (526,) and on to Péleebheet, (531.)

Re-enter the Hills at Timla Pass, (535,) to Chumpawut and Fort Hastings, (541,) viâ Deo Dhoora, (542,) Birar and Jak, (545,) to

Hawul Bagh, (546.) Descend Kosee R. to Dhekulee, and by Kath-kee Nao, (557,) Choumoonh, (562,) and Reonee, (570,) to Kalee-Muth, (571,) thence to Nyathana, (574,) Dwara Hath, (576,) Doona Giree, (577,) onwards NNW. to Loba Gurhee, (581,) in same direction, to Khetee-Malsee, (582,) Chandpoor and Kurn-Prag, returning thence to Kirsal, and Dhunpoor Dobree, (591,) which terminates this tour.

Then follow some observations on the Plains, and on the lower part of the Kalee or Gogra R. to (No. 603.)

The next route begins at Dharee Rope Bridge, (605,) about six miles eastward from Sireenugur, ascending the Mundagnee R. as far as Naluhputun, (617,) returns eastward of that river to Suteear and Agur Peak, (623,) by Deothul Temple to the Ganges near Kundara, and westward of the river by Boorañsee Peak to Gopesur, (637.) Cross Aluknunda R. at Peepulkotee Bridge, along left bank of river to Kurn Prag, (642,) SW<sup>y</sup>. by Chandpoor-Pindooalnee, (644,) Murora, (647,) to Kunoor, (649,) SSE. by Meldhar, (652,) to Jooneea Gurh, (657,) NW. to bank of Saneer R. near Dhaond, and descend with its stream to Pukholee, (665,) southward by Bhoun, (667,) to Kuman near Ram Gunga R.; thence NW. to Kulwaree, and westerly by Seela (679) to Danda Mundee (680.) Trace course of Heoñla R. NW. to Timlee, (684,) returning to Keecha Gurhee, (692.) Cross Nyar R. at Murora Ghat, (695,) Situn Temple, Mujeen Temple, (706,) near Sireenugur, and thence by Keeark Temple (707) to Paoree.

To Talgaon on Chipulghat R. (bearing from Oolka Gurh SSE. six or seven miles,) and having ascended that stream NE<sup>y</sup>. to Boonga, turn SSW<sup>y</sup>. reaching Saneer R. at Kubura, (714,) near Kukhtoon, up the stream to Kulwaree, (716,) and confluence of Lukhor R. (718) with it at Pukholee. Eastwards along the former stream to Soongureea and Nagnee, thence S<sup>y</sup>. to Khurgéth Peak, (721,) confluence of Nyr R. with Ram Gunga (722) at Séra, up the Ram Gunga to Bikeea-kee-Syn, (725,) Boodka-Kedar and Masee Temple, (727,) back to Bikeea-kee-Syn, and ascend Ghugas R. to Teepoula, (729,) thence viâ Koomhpoor to Bañslee, (733,) by Somesur on Kosee R. to Byznath, (735,) to Chiringa on Pindur R., (736,) Budhan Gurh Fort, (737,) Koolsaree, (146,) Sirgoor Temple, (147,) Bugolee Seera, (148,) to Kurn Prag, (149,) the last four numbers being accidentally misplaced in the catalogue. No. 150 is on the Ganges about midway between Kurn Prag and Roodur Prag.

Nos. 151 to 163, both inclusive, are near Bhudree-Nath and Mana Pass to Tartary. Nos. 164 and 165, on Aluknunda R. (or Ganges.)

Nos. 166 to 174 will be found SW. of Almora in the direction of Roodurpoor.

APPROXIMATE ALTITUDES OF PLACES AND STATIONS IN KUMAON, from Barometrical Observations made, during a Survey of that Province, by Capt. W. S. WEBB.

No.	Place of Observation.	Observation.		Comparison.		Approximate Altitude, Fathoms.	Equation for Temperature, Fathoms.	Absolute Altitude, in Feet.	Remarks.
		Barometer.	Therm.	Barometer.	Therm.				
1	Pokhuree (village) .....	25.39	75.5	29.86	82	704.27	80.25	4,707	G. * 4,784.
	Birgootee Ghat, on Ramgunga R. ....	27.72	66½	29.83	82	318 6	32.88	2,109	
	Koosaál (village 80 ft. below tent) ....	26.28	77	29.81	85	547.37	65.45	3,677	
	Stream below Boonga (Baruh Bishnee P.) ..	25.65	75	29.81	85	652.75	76.44	4,375	
	Juntur (village 60 ft. below tent) ....	25.33	76	29.81	85	707.27	83.7	4,746	
	Shéra (village 70 ft. above tent) .....	26.07	81½	29.81	85	582.21	72.73	3,930	
	Crest of Ghatee, between Shera and Shénar .....	24.56	68	29.81	85	841.34	91.35	5,596	
	Station near Mulgaoní .....	24.633	77	29.81	85	825.35	98.67	5,544	
	100 ft. above junction of Dokuhua N. } with Ramgunga R. ....	26.92	96	29.81	85	442.87	63.22	3,037	
	Bulteer (village) .....	26.81	89	29.81	85	460.65	61.81	3,135	
10	Station above Nunpapoh. ....	24.0	74	29.78	87	937.14	110.9	6,252	G. 7,718.  { G. 4,518. (?) By another baro- metrical observation, 4,190 ft. Mean altitude 6,799 ft.
	Bagha Ling Temple .....	22.85	64	29.78	87	1,150.39	122.1	7,635	
	Sath (village) .....	24.64	74	29.78	87	822.84	97.37	5,521	
	Dingathur Temple .....	25.78	73½	29.78	87	626.42	73.75	4,201	
	Moonsheearree (station) .....	23.59	80½	29.74	90	1,006.13	130.6	6,820	
	Do. ....	23.53	70½	29.74	90	1,017.19	119.6	6,821	
	Do. ....	23.56	66½	29.74	90	1,011.66	114.1	6,755	
	Renguleea, on Ramgunga R. ....	27.12	83	29.74	90	53.26	53.26	2,723	
	Nachnee (village) .....	26.65	88½	29.74	90	476.44	66.49	3,258	
	Tejgun, bridge on Ramgunga R. ....	26.82	92	29.74	90	448.82	64.61	3,081	
20	Girgaon (village) .....	23.80	80½	29.74	90	967.64	125.6	6,559	G. 7,718.  { G. 4,518. (?) By another baro- metrical observation, 4,190 ft. Mean altitude 6,799 ft.
	Majkot (village) .....	25.75	88	29.74	90	625.64	87.01	4,276	
	Munruleea (Bhoteea halting ground) ..	22.76	78	29.74	90	1,161.69	147.4	7,856	
	Jym Ghar Bridge .....	25.07	87	29.65	87	728.71	97.79	4,959	

\* The geometrical result.

Approximate Altitudes of Places and Stations in Kumaon.

No.	Place of Observation.	Observation.		Comparison.		Approximate Altitude, Fathoms.	Equation for Temperature, Fathoms.	Absolute Altitude, in Feet.	Remarks.
		Barometer.	Therm.	Barometer.	Therm.				
30	Leepoo Kee Than .....	21.64	69	29.65	87	1,367.68	+	9,127	{ Confluence with Goree R. 15 ft. below.
	Dhumsatu (on Lesser Ruir Ghar) .....	22.56	72	29.65	87	1,186.86	153.5	7,947	
	Bridge over Greater Ruir Ghar .....	23.39	57	29.65	87	1,029.95	137.6	6,783	
	Confluence Bugdwar and Goree Rivers.	22.51	77	29.65	87	1,196.5	100.5	8,055	
	Camp on Goree River above Snow. ....	21.00	52	29.65	87	1,498.06	146.05	9,811	
	Redlakot (village) .....	20.37	50	29.65	87	1,630.34	137.1	10,653	
	Murtalee (village) .....	19.98	70	29.56	84	1,701.09	145.2	11,327	
	Bridge on Nundeejah R. ....	20.45	59	29.56	84	1,600.11	186.8	10,526	
	Mapan (village) .....	20.09	63	29.56	84	1,677.24	154.2	11,082	
	Panchoo (village) .....	19.95	63	29.56	84	1,707.61	169.8	11,284	
40	Milum (village) .....	19.90	67	29.56	84	1,718.51	173	11,405	
	Milum Temple .....	19.71	67	29.56	84	1,760.17	182.4	11,682	
	Milum, bridge on Goree R. ....	19.96	69	29.56	84	1,705.43	186.8	11,343	
	Goree R. emerges from the Snow. ....	19.77	63	29.56	84	1,746.97	185.1	11,543	
	Birjoo (village) .....	19.92	62	29.56	84	1,714.15	176.9	11,314	
	Boorpho (village) .....	20.28	65	29.56	84	1,636.36	171.45	10,836	
	Boorpho Spar bridge, on Goree R. ....	20.38	65	29.56	84	1,615.	169.65	10,695	
	Bridge on Sooring Ghar N. ....	25.55	68	29.56	84	633.13	167.5	4,207	
	Doonuir (village) Moonsheere P. ....	25.1	74	29.56	84	81.46	67.97	4,751	
	Raitee (village) .....	24.31	72	29.56	84	849.19	95.31	5,667	
50	Birneegaon (village) .....	24.04	71	29.56	84	897.7	95.31	5,984	
	Birneegaon (village) .....	21.57	63	29.56	84	1,368.54	99.66	9,043	
	Bétoolee Ghat .....	21.49	58½	29.56	84	1,384.68	138.6	9,104	
	Kaitee Moondee Ghat .....	25.14	66	29.56	84	703.39	132.6	4,663	
	Bridge on Jukoola R. ....	24.37	72	29.56	84	838.48	73.8	5,586	
	Nakuree (village) .....	24.37	72	29.56	84	817.15	94.11	5,477	
	Water-mills on Ghut-Ghar N. ....	24.49	76	29.56	84		95.7		

Approximate Altitudes of Places and Stations in Kumaon.

No.	Place of Observation.	Observation.		Comparison.		Approximate Altitude, Fathoms.	Equation for Temperature, Fathoms.	Absolute Altitude, in Feet.	Remarks.
		Barometer.	Therm.	Barometer.	Therm.				
60	Ranthee Temple .....	23.96	85	29.56	84	912.17	116.9	6,174	
	Bislekh Ghat .....	22.84	73	29.56	84	1,120.08	127.1	7,483	
	Hokura (village) .....	24.41	82	29.56	84	831.18	103.4	5,607	
	Hokura, bridge on Rangunga R. ....	25.72	70	29.56	84	604.33	66.35	4,024	
	Ghōrurēea Dhar. ....	23.9	76	29.56	84	923.06	108.1	6,187	
	Lethee R. (ford) .....	24.72	76	29.56	84	776.56	90.96	5,205	
	Lethee (village) .....	24.20	77	29.56	84	868.89	102.8	5,830	
	Goatherd's hamlet on Lour Dhoora. ....	21.04	69	29.56	84	1,476.58	160.4	9,822	
	Lour (village) .....	23.28	72	29.56	84	1,037.21	116.4	6,922	
	Soopee (ford on Surjoo R.) .....	24.35	75½	29.56	84	842.05	101.2	5,659	
	Soopee (lower village) .....	23.91	73	29.56	84	921.24	104.5	6,154	
	Soopee (upper village) .....	23.47	74	29.63	84½	1,012.19	116.7	6,773	
	Byznath (station) .....	26.27	75	29.74	85	538.81	63.22	3,610	
	Chour (village) .....	23.60	71	29.74	85	1,004.29	112.7	6,702	
	Kumérēe (village) .....	23.78	70	29.74	85	971.29	107.8	6,475	
	Kurim (village) .....	23.72	65	29.74	85	982.26	103.1	6,512	
70	Bughur Temple .....	24.10	75	29.74	85	913.24	106.9	6,121	
	Gunna Nath (Hustee Dhul's stockade) ..	23.55	71	29.81	85	1,023.71	114.9	6,832	
	Kalee Muth stockade (two days) .....	23.94	68	29.81	85	952.38	103.4	6,335	
	Upper Tolce (village) .....	23.91	72	29.74	85	947.61	107.5	6,331	
	Rutmatha Hill. ....	22.51	68	29.74	85	1,209.66	131.4	8,046	
	Jughthana (tent) .....	24.64	83	29.74	85	817.	103.7	5,524	Jughthana village 90 ft. below tent, { = 5,434 ft.
	Bysanee (village) .....	25.72	87	29.74	85	630.7	83.1	4,283	
	Lumchoola Ghat .....	23.24	74	29.74	85	1,071.05	124.1	7,171	
	Lumchoola (village) .....	25.02	70	29.74	85	750.54	83.31	5,003	
	Ojoola (tent above the village) .....	25.68	86	29.74	85	637.46	83.22	4,324	

G. 6,900.  
G. 6,489. See Nos. 85, 571.

Approximate Altitudes of Places and Stations, in Kumaon.

No.	Place of Observation.	Observation.		Comparison.		Approximate Altitude. Fathoms.	Equation for Temperature. Fathoms.	Absolute Altitude. in Feet.	Remarks.
		Barometer.	Therm.	Barometer.	Therm.				
80	Runchoola (temple in fort).....	25.82	68	29.74	85	613.85	+	4,083	G. 4,106.
	Jintolee Churhae .....	24.67	79	29.74	85	811.72		5,464	
	Byznath Temple .....	26.33	75	29.74	85	528.9		3,545	G. 3,614. See No. 735.
	Bhéta (village on bank of Mynol N.) ..	25.02	55	29.81	85	760.75		4,988	
	Boodhulee Churhae.....	24.26	60	29.81	85	895.43		5,903	
	Bhynsurgaon (Talookh Munsaree).....	25.22	74	29.81	85	726.17		4,862	
	Reservoir near Gunna-Nath Temple....	24.04	72	29.81	85	934.28		6,242	
	40 feet above Busolee (village).....	25.43	82	29.81	85	690.16		4,650	Busolee, 4,610 ft.
	Kalee Muth .....	23.89	67	29.81	85	961.46		6,388	G. 6,489. See Nos. 69, 571.
	Col. Lyons' house, Almora .....	24.64	65½	29.81	85	827.21		5,485	
90	Fort Moira.....	24.679	64	24.685	64	+1.06	.08	5,492	C. O. at Col. Lyons' house.
	Fort Almora.....	24.804	64.5	24.633	63	-30.05	2.33	5,291	Do. do. G. 5,409.
	St. Mark's Tower .....	24.673	67	24.534	71	-24.54	2.22	5,325	Do. do. G. 5,477.
	Havul Bagh (house).....	26.04	69	29.81	85	587.21	64.47	3,910	G. 3,961. See No. 546.
	Mount Browne (Almora).....	24.399	69	23.774	67	-112.7	9.9	5,626	C. O. at Kaleemuth. G. 5,777.
	Scoopah (village) Chanee .....	25.40	80	29.89	85½	695.28	86.1	4,688	{ Crest of the ridge about 100 ft. higher.
	Dhoul-Cheena (tent) or Sym Déo .....	24.16	73	29.89	85½	924.29	106.55	6,185	
	Khoonkhét (village) .....	26.66	78	29.89	85½	496.66	60.29	3,342	
	Kurulagaon (village) Reethaghar .....	26.19	76	29.89	85½	573.91	68.27	3,853	
	Khureh (station) .....	25.384	74½	29.89	85½	710.34	83.19	4,761	G. 4,833.
100	Raekholee (tent) .....	24.62	73	29.89	85½	842.38	97.12	5,637	
	Thurnolee (tent).....	25.186	69	29.89	85½	742.98	82.04	4,950	
	Jagésur Temple .....	24.375	70¾	29.89	85½	886.7	99.74	5,919	
	Bootha Jagésur Temple.....	23.408	56	24.421	63	+183.45	12.31	+1,171	{ Correspondent observation at Jagésur Temple. Bootha Jagésur above Calcutta 7,090 ft.

Approximate Altitudes of Places and Stations in Kumaon.

No.	Place of Observation.	Observation.		Comparison.		Approximate Altitude. Fathoms.	Equation for Temperature. Fathoms.	Absolute Altitude, in Feet.	Remarks.
		Barometer.	Therm.	Barometer.	Therm.				
110	Shem Deo Ridge .....	23.90	64	29.93	84	977.09	+	6,463	G. 5,720.
	Koontola (village) .....	24.35	69	29.93	84	896.08	97.30	5,960	
	Bilok (station) .....	24.454	71	29.93	84	878.28	97.51	5,855	
	Bhysare Temple .....	25.784	76	29.93	84	646.56	75.73	4,334	G. 5,169.
	Dusoula-khet (on Shinee R.) .....	27.864	79	29.93	84	311.26	37.6	2,093	
	Dhunikh Ridge .....	26.038	70	29.93	84	604.66	66.4	4,026	
	Baruhkot (station) .....	25.034	68½	29.93	84	776.46	83.84	5,162	G. 5,439.
	Rameshur Temple, confluence Surjoo and Ramgunga R. ....	28.431	78	29.93	84	223.3	26.7	1,500	
	Byra (upper fields of the village) .....	25.812	73	29.93	84	643.19	72.98	4,297	
	Peepul tree in rice fields, on Kulsilla R. ....	27.234	71	29.93	84	410.59	45.59	2,737	{ Another observation gives 6,194 ft. Hence Calcutta observations corresponding are used. G. 6,089. G. 7,037. (?)
	Keemar (village) .....	25.253	67	29.93	84	738.46	78.38	4,901	
	Kande Temple (Salim station) .....	24.721	63	29.93	84	830.59	84.11	5,488	
120	Byjkunda (shilung tree) .....	25.73	69	29.93	84	656.67	71.3	4,368	Hence computations made with new Tables.
	Thath (station) .....	24.224	66	29.93	84	919.33	96.45	6,095	
	Shem-Deo Temple .....	23.631	60	29.93	84	1,026.43	100.2	6,760?	
	Onéona (village) .....	25.148	Centigr. 17.8	30.02	Centigr. 22.2	Feet. 4,614	Feet. 394	5,008	
	Choukhoonta Temple .....	23.773	18.9	30.06	21.7	6,115	530	6,645	
	Choooreghar (village) .....	25.031	15.5	30.08	21.1	4,788	373	5,161	
	Sooee (village) .....	24.587	18.3	30.06	21.1	5,237	441	5,678	
	Kurael (village) .....	25.972	22.8	30.08	21.1	3,826	357	4,183	
	Deogoor Ghat .....	23.732	15	30.06	21.1	6,160	473	6,633	



Approximate Altitudes of Places and Stations in Kumaon.

No.	Place of Observation.	Observation.		Comparison.		Approximate Altitude, Fathoms.	Equation for Temperature, Feet.	Absolute Altitude, in Feet.	Remarks.
		Barometer.	Therm.	Barometer.	Therm.				
		Centigr.			Centigr.				
	Soonkot, Lower (village).....	25.478	17.8	30.04	21.7	4,292	362	4,654	{ The village about 100 feet higher = 3,374 ft.  In Turae. See No. 595.  The temperature at the station of comparison, though used in the calculation, has been omitted by mistake.  Corresponding Observation at Jwara. Height of Mulooakhal above Calcutta = 3,856 ft. The village about 90 ft. higher = 2,843 ft.
	Suleeance (village).....	25.884	20	30.07	21.7	3,906	347	4,253	
	Khuréh (village).....	25.526	16.7	30.08	21.7	4,278	331	4,629	
	Baél.....	24.678	16.1	30.09	21.1	5,067	402	5,469	
	Kéla-Ghat (on Beesjoola N.).....	27.952	20	30.13	20.6	1,955	168	2,123	
	Bhinjur (tent).....	26.837	18.9	30.13	21.1	3,016	258	3,274	
	Khutolee (village).....	25.454	16.1	30.13	19.4	4,394	323	4,717	
	Tand (village).....	26.056	15.5	30.13	19.4	3,785	280	4,065	
	Loolan-Gurhee (Gorkha stockade).....	24.889	11.7	30.13	18.3	5,011	321	5,332	
	Doorga Peepul (on Oghuleea N.).....	27.984	16.7	30.13	18.3	1,925	143	2,068	
	Kul-luga (a cattle station at foot of hills).....	29.214	23.9	30.13	19.4	804	73	877	
	Nanuknuh.....	29.398	18.9	30.06	20.5	581	49	630	
						Fathoms.	Fathoms.		
	Ford, Nyar R. ....	28.376	58	29.875	..	223.6	28.6	1,513	{ The temperature at the station of comparison, though used in the calculation, has been omitted by mistake.  Corresponding Observation at Jwara. Height of Mulooakhal above Calcutta = 3,856 ft. The village about 90 ft. higher = 2,843 ft.
	Birung (fields about 250 ft. below village).....	26.780	82	29.875	..	475	59.8	3,209	
	Jwara (village).....	25.850	83	29.832	..	396.6	51.3	2,687	
	Mulooakhal.....	24.816	66	25.852	..	177.6	17.1	1,168	
	Koonjeth (tent).....	25.782	80	29.832	..	408.1	50.8	2,753	

ALTITUDES OF PLACES AND STATIONS IN KUMAON deduced from Barometrical Observations, made during a Survey of that Province, by Capt. W. S. WEBB.

No.	Place of Observation.	Observation.		Comparison.		Equation for Expansion + to coldest Barom.	Approximate Altitude, in Feet.	Equation for Temperature, in Feet, +	Absolute Altitude, in Feet.	Remarks.
		Barometer. Attached.	Thermometers. Detached. Centigrade.	Barometer. Attached.	Thermometers. Detached. Centigrade.					
139	Kasheepoor Factory, Bungalow .....	29.280	16.1	30.007	21.1	..	691	55.8	746.8	See also No. 529. { See this computation at length.
	Mean of 4 days in February, 1818.....	29.229	16.1	30.033	21.1	.029	681.5	53.94	735.44	
	Do. 4 do. ....	29.222	20.6	30.005	22.2	.009	681.5	62.06	743.56	
	Do. 4 do. ....	29.096	20.	29.914	24.5	.026	699	66.6	765.6	
	Do. 5 do. ....	..	..	..	..	..	..	..	747.8	
	Mean of the above observations in 1818 ..	..	..	..	..	..	..	..	763.6	
	Mean of 3 days' observation in January, 1819.....	29.129	16.7	29.975	22.8	.045	704.5	59.1	803.34	
	Do. 5 do. in February, 1819....	29.145	20.	29.998	22.8	.016	737	66.34	729.92	
145	Do. 5 do. do. ....	29.131	21.7	29.908	26.1	.026	663	66.92	765.6	
	Mean of the above observations in 1819 ..	..	..	..	..	..	..	..	756.7	
	Mean result of both years.....	..	..	..	..	..	..	..	..	

The elevation of the factory Bungalow, at Kasheepoor, is thus computed to be 737 feet above Mr. Colvin's house, at Calcutta, where the corresponding observations were made: the station, whence altitudes of some of the snowy peaks were observed, is about 35 feet lower, or 722 feet.

A list of altitudes of many places in this survey has been published in the Asiatic Researches, in which the height of the station, at Kasheepoor, was assumed (from a general estimate of the declination of level to the sea) to be 650 feet; and upon that estimate, Kasheepoor being taken as the zero of my observations, all the *geometrical* altitudes in the survey are based. The barometrical result exceeds this estimate by 72 feet, which quantity must therefore be added to all the elevations given in the above-named list, which are geometrically deduced.

No allowance has been made for the height of Mr. Colvin's house above the sea, which is probably from 70 to 100 feet.

Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

No.	Place of Observation.	Observation.		Comparison.		Equation for Expansion + to coldest Barom.	Approximate Altitude, in Feet.	Equation for Temperature, in Feet. +	Absolute Altitude, in Feet.	Remarks.
		Thermometers.		Barometer Attached.	Thermometers Attached.					
		Barometer.	Centi. grade.							
150	Koolsaree rope bridge, on Pindur R. . .	26.54	31.7	31.7	30.04	°	31.1	°	3,733 (a.)	{ This and following observations from Mr. Tate's Field Book. { C. O. at Burosee Chara, (See No. 286.) C. O. at Gundolee. C. O. at Gundolee. C. O. at Moosapanee. C. O. at Ghastolee. C. O. at Dhun-Rao. (Supposed to be at least 1,000 ft. below summit of the pass. Barometer injured.) C. O. at Ratha-Köond.
	Sirgoor Temple.....	25.832	26.7	31.7	30.01	°	31.7	°	4,467 (a.)	
	Bugolee-Seera rope bridge .....	27.234	28.9	32.2	29.98	°	32.2	°	2,864 (a.)	
	Old Temple at Kurn Prag, 50 ft. above junction of Pindur and Ganges Rivers.....	27.584	30.6	32.2	30.0	°	32.2	°	2,521 (a.)	
	Nugrasoo Temple .....	27.366	28.3	32.2	30.03	°	32.2	°	2,763 (a.)	
	Burosee-Chara .....	24.968	23.9	29.4	29.99	°	29.4	°	5,287	
	Bishun Prag (Peepul Tree).....	25.422	17.8	23.9	24.968	°	23.9	°	4,743	
	Confluence of Khirch R. ....	22.550	17.8	29.4	29.98	°	29.4	°	8,097	
	Gundolee (village).....	20.378	13.3	28.9	29.96	°	28.9	°	10,861	
	Mana Bridge .....	20.640	7.8	6.1	20.350	°	5	°	10,492	
160	Moosapanee (halting ground) .....	19.475	3.9	5	20.375	°	4.4	°	12,052	
	Ghastolee do. ....	18.560	-2.8	0	19.475	°	0	°	13,286	
	Dhun-Rao do. ....	17.37	-9.4	-2.8	18.56	°	-2.8	°	14,935	
	Ratha-Köond do. ....	16.572	-10	-9.4	17.37	°	-9.4	°	16,107	
	Do. compared with Calcutta (noon).....	16.64	1.7	28.9	30.034	°	28.9	°	16,242	
	Jograo (halting ground) .....	15.855	-13.9	-10	16.572	°	-10	°	17,182	
	Bhudree Nath Temple .....	20.70	9.4	28.9	29.99	°	28.9	°	10,294	

Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

No.	Place of Observation.	Observation.		Comparison.		Equation for Expansion + to coldest Barom.	Approximate Altitude, in Feet.	Equation for Temperature, in Feet, +	Absolute Altitude, in Feet.	Remarks.
		Barometer, Attached.	Thermometers, Detached, Centigrade.	Barometer, Attached, Detached, Centigrade.	Thermometers, Detached, Centigrade.					
170	Pundkaur Temple.....	24.02	15.°	30.03	29.4°	.069	5,744	544	6,288	See No. 634. See Nos. 149 and 642. G. 4,343.  { Mr. Tate's observations end. G. 7,265.  See Nos. 356 and 374. See No. 375. See No. 376. C. O. at the Ford.  C. O. at Lungoor Fort.
	Nund Prag.....	27.12	18.9	29.96	23.9	.027	2,569	233	2,802	
	Kurn Prag (temple in village).....	27.376	26.1	29.94	29.4	.018	2,315	272	2,587	
	Nynee-Tal.....	23.915	7.2	29.97	26.7	.094	5,779	417	6,196	
	Bheem-Tal.....	25.735	24.4	29.945	29.4	.025	3,923	449	4,372	
	Hunooman-Köond.....	25.98	23.3	29.98	30.°	.035	3,696	420	4,116	
	Luchmun-Köond.....	25.932	23.9	29.98	30.°	.032	3,747	430	4,177	
	Nokoochea Tal.....	25.78	26.7	29.87	30.°	.017	3,820	461	4,281	
	Muboa Tal.....	26.435	29.4	29.95	32.8	.018	3,235	429	3,664	
	Uinaboo (ridge of Ghagur above Nynee Tal).....	23.2	20.°	29.96	31.1	.05	6,607	719	7,326	
	Kath-Godam.....	28.08	35.°	29.82	30.6	.026	1,589	220	1,809	
	Seeahce Temple.....	23.20	23.3	29.86	31.1	.036	6,536	762	7,298	
	Skérkot.....	29.29	17.2	30.02	25.°	.046	601	53	654	
	Nujeeabad.....	29.129	18.3	30.03	23.3	.029	768	67	835	
	Jafurabad.....	28.97	25.°	30.03	23.3	.010	945	96	1,041	
	Kotdwara (Ford Koh R.).....	28.607	23.3	29.98	23.3	..	1,221	121	1,342	
	Kotdwara (Tuhseeldar's House).....	28.413	24.4	28.569	25.°	.003	+140	15	1,497	
180	Dhoora kee Tal.....	25.873	21.7	29.98	23.3	.008	3,831	369	4,200	
	Churekh Ridge.....	25.021	22.2	29.93	24.4	.011	4,657	464	5,121	
	Lungoor Fort.....	23.904	18.9	29.947	27.2	.040	5,829	573	6,402	
	Do.....	23.941	18.9	29.922	27.2	.040	5,767	566	6,333	
	Balee (village).....	26.652	26.1	23.936	17.8	.040	-2,756	258.4	3,353	
	Darmakhet.....	25.322	21.1	30.035	27.8	.034	4,412.5	461.2	4,874	
	Gurhseer Peepul Tree (40 ft. below tent)	26.302	21.7	30.03	27.8	.032	3,422	361	3,783	

Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

No.	Place of Observation.	Observation.		Comparison.		Equation for Expansion + to coldest Barom.	Approximate Altitude, in Feet.	Equation for Temperature, in Feet, +	Absolute Altitude, in Feet.	Remarks.
		Barometer, Attached.	Thermometers, Centigrade.	Barometer, Attached.	Thermometers, Centigrade.					
190	Dhoora (station) near Ajmeer Temple.	25.137	15.°	29.966	27.8°	.064	4,513	411	4,924	C. O. at Dhoora.
	Ajmeer Temple (Muhabulee T.)	24.364	8.9	25.039	12.8	.019	+691	32	5,647	Do. do.
	Do. do.	24.454	15.°	25.104	15.°	..	+684	43	5,651	Do. do.
	Observatory (tent)	25.108	15.°	25.052	15.°	..	-58	3	4,863	Do. do.
	Goaree (village)	27.050	23.9	30.01	28.9	.027	2,681	301	2,982	
	Tent near Runchoola (station)	25.542	21.1	30.032	28.9	.040	4,180	447	4,627	
	Do. do.	25.519	21.1	29.964	28.9	.040	4,144	447	4,591	
	Runchoola (station)	25.304	16.7	25.395	12.8	.020	+114	7	4,731	C. O. at Tent.
	Phuldakot (tent)	25.732	21.1	25.365	12.2	.045	-329	22	4,259	C. O. at Runchoola Tent.
	Phuldakot Peak	25.619	16.7	25.712	18.3	.008	+86	5	4,350	C. O. at Tent.
200	Koolbunda-Seera (on Héonia R.)	27.045	29.4	29.88	28.3	.007	2,603	320	2,923	
	Oonchakot (tent)	25.653	22.8	29.88	28.9	.031	3,943	433	4,376	
	Phafisa-Khal (tent)	24.618	22.2	29.87	28.3	.030	5,007	539	5,546	
	Do. do. Peak	24.472	15.°	29.590	20.°	.024	+99	7	5,632	C. O. at Tent.
	Bureth (80 ft. below village)	25.437	19.4	29.88	28.9	.048	4,145	427	4,572	
	Nogurh Peak	24.113	18.9	29.875	28.9	.048	5,536	578	6,114	
	Huthnoura Temple	27.079	27.8	29.88	29.4	.009	2,551	312	2,863	
	Kunoulee (tent)	23.385	18.9	29.825	31.1	.037	6,274	676	6,944	
	Oolka (tent)	23.57	21.7	29.872	31.1	.047	6,123	697	6,820	
	Do. do.	23.563	20.6	29.897	31.1	.049	6,150	677	6,827	
	Do. do.	23.544	20.°	29.895	30.°	.047	6,171	660	6,831	
	Do. do.	23.495	16.7	29.845	31.1	.068	6,158	629	6,787	
	Mean of the above	..	..	..	..	..	..	.	6,816	See No. 320.
Oolka (tree in the upper fort)		23.421	15.6	23.506	15.6	..	+95	6	6,918	C. O. at Tent.

Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

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		Thermometers.		Thermometers.								
		Barometer. Attached.	Centigrade.	Barometer. Attached.	Centigrade.							
210	Soomaree Temple .....	25.133	22.5	22.8	31.1	29.772	31.1	0	4,372	503	4,875	See No. 469.
	Soomaree Station (tree) .....	25.259	17.8	17.8	17.8	25.071	17.8	..	—195	14	4,666	C. O. at Temple.
	Sireenugur (Bungalow) .....	27.907	30.6	30.6	31.1	29.69	31.1	.003	1,611	211	1,822	See Nos. 321, 482, 483.
	Sindoorree (village) .....	26.778	32.8	32.8	31.7	29.689	31.7	.006	2,694	371	3,005	
	Dharkot (120 ft. above village) .....	25.423	31.1	31.1	31.7	29.689	31.7	.003	4,039	543	4,582	
	Soura (80 ft. below village) .....	24.503	27.8	27.8	32.2	29.678	32.2	.022	4,969	636	5,605	
	Sukneana (about 120 ft. above vil- lage) .....	24.277	27.8	27.8	32.2	29.678	32.2	.022	5,210	667	5,877	
	Pokree-Khal. ....	25.695	31.1	31.1	32.2	29.688	32.2	.006	3,758	506	4,264	
	Sooreh-Khal. ....	25.722	31.1	31.6	32.2	29.688	32.2	.006	3,730	506	4,236	
	Agustmoondee (tent) near Temple ..	27.041	35.6	35.6	32.2	29.688	32.2	.020	2,450	356	2,806	See No. 612.
	Chundrapoor Temple .....	27.023	35.	35.	32.2	29.688	32.2	.016	2,464	353	2,817	
	Temreea (village) .....	26.384	28.3	28.3	32.2	29.687	32.2	.021	3,052	393	3,445	
220	Naluhputun (about 70 ft. above temple)	25.164	29.4	29.4	32.2	29.687	32.2	.014	4,292	567	4,859	
	Mykhinda (village) .....	24.538	25.	25.	32.2	29.706	32.2	.035	4,942	603	5,545	See No. 233.
	Ukrototee (do.) .....	24.121	26.7	26.7	32.2	29.706	32.2	.026	5,397	679	6,076	See No. 232.
	Gouree Koond (tent) .....	23.412	22.8	22.8	31.7	29.79	31.7	.042	6,232	726	6,958	See No. 230.
	Gouree Koond (hot well) .....	23.620	17.8	17.8	18.3	23.337	18.3	.002	—316	23	6,619	C. O. at Tent.
	Bheem Odeear .....	21.881	17.8	17.8	31.7	29.75	31.7	.061	7,933	837	8,770	See No. 229.
	Kedar Nath (porch of temple) .....	19.642	12.8	12.8	32.2	29.76	32.2	.076	10,725	1,030.5	11,755.5	
	Bheem Odeear .....	21.884	20.	20.	31.7	29.73	31.7	.051	7,923	872	8,795	See No. 277.
	Gouree Koond (tent) .....	23.375	25.5	25.5	31.7	29.72	31.7	.029	6,225	761	6,986	See No. 225.
	Jhillmilputun Bridge .....	24.355	16.7	16.7	31.7	29.69	31.7	.073	5,083	525	5,608	
	Ukrototee (village) .....	24.063	28.9	28.9	31.7	29.69	31.7	.013	5,461	706	6,167	See No. 224.
	Mykhinda „ .....	24.593	15.5	15.5	31.1	29.67	31.1	.076	4,810	478	5,288	See No. 223.
230	Naluhputun .....	25.184	27.2	27.2	30.5	29.65	30.5	.016	4,238	530	4,768	See No. 617.

Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

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		Barometer. Attached.	Thermometers. Detached. Centigrade.	Barometer. Detached.	Thermometers. Attached. Detached. Centigrade.						
240	Oolkee Muth Temple, or Oolkee Muth	25.543	20.5	20.5	31.1	31.1	.054	3,909	431	4,340	See No. 619.
	Oolkee Rope Bridge .....	26.333	17.2	17.2	20.6	20.6	.018	-811	64	3,465	C. O. at Temple.
	Dhurnasun on Khakra R. ....	24.189	17.8	17.8	18.3	18.3	.002	+1,394	108	5,842	Do. do.
	Toong Nath (Dhumsala) .....	21.538	17.2	17.2	21.1	21.1	.017	+4,516	369	9,224	Do. do.
	Crest of Toong Nath Ridge .....	21.254	20.5	20.5	21.1	21.1	.002	+4,879	435	9,654	Do. do.
	Head of Nighol Gunga .....	21.416	17.8	17.8	18.3	18.3	.002	+4,566	351	9,257	Do. do.
	Mundul .....	25.108	25.6	25.6	32.2	32.2	.033	4,390	449	4,839	
	Gopésur Temple .....	25.22	22.2	21.1	32.2	32.2	.050	4,228	479	4,707	See Nos. 293 and 637.
	Peepulkotee Bridge .....	36.311	24.4	23.3	31.7	31.7	.039	3,112	366	3,478	See No. 292.
	Peepul Tree .....	25.450	31.7	31.7	31.7	31.7	..	4,017	545	4,562	See Nos. 290 and 638.
	Bridge on Putal-Gunga R. ....	24.285	31.7	28.9	31.7	31.7	.048	4,181	542	4,723	See No. 287.
	Road crosses Purnaon R. ....	23.704	21.7	21.1	30.6	30.6	.013	5,811	656	6,467	See No. 284.
	Josee Muth (tent) .....	23.928	27.8	27.8	28.9	28.9	.034	5,604	698	6,302	
	Goatherd's Hamlet (tent) .....	21.782	21.1	21.1	29.6	29.6	.058	7,951	849	8,800	
250	Ascent of Pilgoenta Hill (second tent)	19.689	13.3	13.3	28.3	28.3	.061	10,566	938	11,504	
	Crest of Pilgoenta Ridge .....	18.910	12.2	12.2	28.3	28.3	.051	11,618	1,002	12,620	
	Panaagon (five days) .....	22.007	18.3	18.3	30.	30.	.031	7,691	793	8,484	
	Do. (five days) .....	21.985	18.3	18.3	29.6	29.6	.050	7,666	782	8,448	
	Do. (six days) .....	21.957	20.6	20.6	27.8	27.8	.032	7,689	794	8,483	
	Mean altitude .....	..	..	..	..	..	..	..	..	8,471	
	Tupoobun .....	24.001	25.6	25.6	29.4	29.4	.018	5,532	650	6,182	See No. 275.
	Sunungentha .....	23.012	23.3	23.3	29.4	29.4	.028	6,617	744	7,361	See No. 271.
	Mularee .....	20.693	20.	20.	28.9	28.9	.036	9,309	969	10,278	See No. 270.
	Phurkeea .....	20.348	17.2	17.2	29.4	29.4	.050	9,728	968	10,696	





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		Barometer.	Thermometers. Attached. Detached. Centigrade.	Barometer.	Thermometers. Attached. Detached. Centigrade.						
	Spar Bridge on Dhoullee R. (3 spars) .	21.534	21.7 °	21.7 °	24.4 °	24.4 °	0.012	-147	14	9.299	{ C. O. at Jelum. This bridge is between Mularce and Jelum. { See No. 256.
	Sumungentha.....	23.058	22.8	22.8	23.3	23.3	0.025	6,578	717	7.295	{ C. O. at Sumungentha. { This bridge is near Jelum.
	Spar Bridge on Dhoullee R.....	22.724	15.6	15.6	22.8	22.8	0.033	+332	27	7,654	
	Do. do. on Reendee R.....	23.696	16.7	16.7	23.3	23.3	0.055	5,829	560	6.389	C. O. at Reendee Bridge.
	Do. do. on Rungree R.....	23.956	20.7	20.7	23.696	16.7	0.016	-268	20	6,101	
	Toonghasee Village (two days).....	22.307	16.7	16.7	27.8	27.8	0.050	7,382	699	8,081	
	Do. do. (six days).....	22.424	15.6	15.6	28.9	28.9	0.060	7,377	699	8,076	
	Do. do. (six days).....	22.431	18.3	18.3	28.9	28.9	0.048	7,351	741	8,092	
	Mean of the above.....	..	..	..	..	..	..	..	..	8,083	
	Meergh (Punchuklee).....	22.858	19.4	19.4	29.766	29.4	0.046	6,828	710	7,538	See No. 247.
	Josee Muth (tent).....	23.991	23.9	23.9	29.77	27.2	0.016	5,606	612	6,218	
	Josee Muth (station).....	22.031	19.4	19.4	29.807	29.4	0.044	7,825	815	8,640	
	Josee Muth Nur-Sing Temple.....	24.072	17.8	17.8	24.026	19.4	0.008	-59	4	6,155	C. O. at Tent. Do. do. See No. 152.
	Bishun Prag (Spar bridge).....	23.239	22.8	21.7	23.958	23.9	0.005	-1,362	126	4,730	See No. 246.
	Road crosses Pugnau R.....	23.811	24.4	24.4	29.80	28.3	0.019	5,826	635	6,481	C. O. at Punkhee Muth. See Nos. 244 and 638.
	Punkhee Muth Temple.....	25.343	27.8	27.8	29.80	28.3	0.003	4,219	504	4,723	See No. 639.
	Bridge on Pital Gunga R.....	25.464	15.6	15.6	25.343	27.8	0.062	-187	17	4,519	{ C. O. at Doongree Tent. { See No. 243.
	Peepulkotee (fields of).....	25.639	22.8	22.8	29.81	30.7	0.037	3,890	438	4,328	
	Doongree (80 ft. below village).....	24.928	25.6	25.6	29.87	29.4	0.019	4,693	553	5,246	
	Peepulkotee Bridge.....	26.424	14.4	14.4	24.928	25.6	0.059	-1,577	134	3,535	

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Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

No.	Place of Observation.	Observation.		Comparison.		Equation for Expansion + to coldest Barom.	Approximate Altitude, in Feet.	Equation for Temperature, in Feet, +	Absolute Altitude, in Feet.	Remarks.		
		Barometer.	Thermometers. Attached. Detached. Centigrade.	Barometer.	Thermometers. Attached. Detached. Centigrade.							
300	Gopésur Temple (about 100 ft. above temple) .....	25.203	25.6	25.6	29.4	29.4	0.19	4,408	517	4,925	See Nos. 242 and 637.	
	Bridge and Punchukée on Bal-Gunga R. ....	25.460	19.4	18.3	29.87	29.4	0.51	4,111	419	4,530		
	Kandé (30 ft. below village) .....	24.512	24.4	24.4	29.87	29.4	0.24	5,126	589	5,715		
	Bung'hela (tent) .....	21.855	18.9	18.9	29.87	29.4	0.46	8,087	831	8,918		
	Bung'hela (station) .....	21.736	8.9	8.9	21.830	11.1	11.1	+99	4	9,021	C. O. at Tent.	
	Jourasée .....	25.115	23.3	23.3	29.87	29.4	0.30	4,487	502	4,989		
	Déothula Temple (two days) .....	24.017	23.3	23.3	29.87	29.4	0.29	5,652	636	6,288		
	Choundée (about 100 ft. above village) ..	25.224	22.2	22.2	29.87	29.4	0.36	4,369	480	4,849		
	Muhur Temple (25 ft. below temple) ..	25.015	22.8	22.8	29.87	29.4	0.33	4,588	512	5,100		
	Agur Camp (three days) .....	23.176	17.2	17.2	29.92	29.4	0.56	6,593	657	7,250		
	Agur Peak .....	22.590	12.8	12.8	23.103	9.4	9.4	0.16	+603	28	7,881	C. O. at Camp. See No. 628.
	Hisala .....	25.832	25.6	25.6	29.93	29.4	0.20	3,817	448	4,265		
	Bumot (20 ft. below village) .....	27.228	23.9	23.9	29.95	29.4	0.30	2,454	279	2,733		
	Do, rope bridge on Alukunda R. ....	27.592	11.7	11.7	27.228	23.9	23.9	0.67	-409	30	2,294	C. O. at Bumot Tent.
	310	Kandé (about 160 ft. above village) ..	25.144	23.3	23.3	27.184	27.8	0.22	+2,010	217	4,960	Do. do.
Tuleear (25 ft. below village) .....		24.986	22.8	22.8	30.025	30.0	0.36	4,749	536	5,285		
Hurealee (tent) .....		23.019	12.2	12.2	24.986	22.8	0.49	+2,082	156	7,253	C. O. at Tollear.	
Hurealee Temple .....		21.346	8.3	8.3	22.998	7.2	7.2	+1,947	64	9,534	C. O. at Tent.	
Gopheer (about 60 ft. below village) ..		24.542	18.9	18.9	29.978	28.3	0.46	5,164	519	5,683		
Goar (about 80 ft. above village) .....		24.369	16.1	16.1	29.977	27.8	0.57	5,335	499	5,834		
Doongra (village) .....		24.950	16.7	16.7	29.95	27.8	0.55	4,702	446	5,148		
Burjakhunee Ghat .....		23.499	10.6	8.9	24.976	18.3	0.36	+1,548	90	6,786	C. O. at Doongra.	
Ford on Buchuu Gudh R. ....		26.312	15.7	13.9	24.976	18.3	0.17	-1,375	95	3,678	Do. do.	
Pithondee-Khal .....		23.155	16.7	13.3	29.94	28.3	0.53	6,636	591	7,227		
	Chopura Tent (two days) .....	23.567	17.8	17.8	29.94	27.2	0.44	6,188	594	6,782		

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		Barometer. Attached.	Thermometers. Detached. Centigrade.	Barometer. Attached.	Thermometers. Detached. Centigrade.					
320	Chopura Station (Bunraee Temple) . .	23.403	12.2	11.7	11.1	.005	+169	18	6,959	C. O. at Tent.
	Khursoo-Syna (Déota's Than) . . . . .	24.420	18.3	18.3	27.2	.044	5,316	515	5,831	See Nos. 205-208.
	Oolka Camp (same ground) . . . . .	23.613	15.6	15.6	27.2	.055	6,921	569	6,790	See Nos. 212, 482, 483.
	Sreenugur Bungalow . . . . .	23.279	19.4	19.4	26.7	.042	1,621	159	1,780	{ C. O. at Sireenugur. See Nos. 400, 472-481, inclusive; also No. 522.
	Phoree (village) . . . . .	24.942	18.3	18.3	20.	.008	+3,238	264	5,281	C. O. at Nishunee Tent.
330	Nishunee (about 60 ft. below village) .	25.344	17.2	17.2	26.1	.045	4,375	404	4,779	C. O. at Chopuree Tent.
	Booba-Khal . . . . .	24.392	11.7	10.6	17.2	.027	+969	57	5,805	
	Chopuree-on (50 ft. below village) . . . .	25.572	21.7	21.7	25.	.017	3,841	382	4,223	
	Bhynsoora-Khal . . . . .	23.834	11.1	10.6	25.853	.045	+2,067	139	6,429	
	Bidolee (80 ft. below village) . . . . .	26.164	19.4	19.4	25.	.029	3,536	335	3,871	
	Chipul-Ghat (Peepul Tree) . . . . .	26.438	20.6	20.6	25.	.023	3,271	319	3,590	
	Srinjee (Dak Hut) . . . . .	25.090	19.4	19.4	24.4	.025	4,635	434	5,069	
	Kutrolee (lower houses) . . . . .	23.544	21.1	21.1	24.4	.014	6,308	611	6,919	
	Punjik-Khal . . . . .	22.558	9.4	8.9	23.544	.053	+1,054	675	8,040	C. O. at Kufurolee. See No. 649.
	Kuneoor (about 150 ft. below village) .	24.245	19.4	19.4	23.9	.022	5,543	512	6,055	C. O. at Kuneoor Tent.
	Ford on Snee R. . . . .	24.732	1.1	0.	24.25	.028	-342	8	5,505	
	Masoon (about 120 ft. below village) . .	24.65	20.	20.	30.03	.019	5,124	480	5,604	C. O. at Mason Tent.
340	Khundee-Khal . . . . .	22.824	13.9	12.8	24.65	.028	+1,974	138	7,715	
	Chouthan (Dak Hut) . . . . .	25.512	20.6	20.6	30.026	.017	4,228	400	4,628	
	Ootrala (Dak Hut on Chouthan R.) . .	26.634	19.4	19.4	30.022	.024	3,097	285	3,382	
	Tamadhond (Dak Hut) . . . . .	27.130	20.	20.	30.028	.024	2,621	249	2,870	
	Boodha-Kedar Temple . . . . .	27.323	20.6	20.6	30.025	.021	2,437	234	2,671	
	Kuman (village) . . . . .	26.439	16.7	16.7	29.99	.044	3,240	287	3,527	
	Naguee (village) . . . . .	25.019	20.	20.	25.6	.028	4,702	458	5,160	



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		Thermometers.		Thermometers.						
		Barometer. Attached.	Detached. Centi grade.	Barometer. Attached.	Detached. Centi grade.					
370	Futtehgunj .....	29.428	23.3	23.3	21.1	21.1	549.5	51	600.5	{ See No. 366. Mean altitude 752 ft. See Nos. 176, 356. Mean altitude 836 ft. See No. 177. Mean altitude 1,063 ft. See No. 178. Mean altitude 1,307 ft. C. O. at Kotdwara Ford. C. O. at Jooee. C. O. at Chunda Tent. See No. 680. C. O. at Danda Mundee. C. O. at tent. C. O. at do. C. O. at Mango tree. See No. 499.
	Hoochoore .....	29.466	22.2	22.2	21.1	21.1	511	47.5	558.5	
	Dhunalee (second) .....	29.418	22.8	22.8	22.2	22.2	575	56	631	
	Kumora-Dhumora .....	29.464	26.1	30.066	22.8	22.8	546	56	602	
	Burhépoor. ....	29.372	21.7	30.066	22.8	22.8	603	55.5	658.5	
	Kaseepoor-Sooar .....	29.266	24.4	30.066	22.8	22.8	711	71	782	
	Nujeebabad (grove) .....	29.059	28.9	29.913	27.8	27.8	761	90.5	851.5	
380	Jafurabad .....	28.814	28.9	29.90	28.3	28.3	968	117	1,085	
	Kotdwara (ford) .....	28.607	29.4	29.88	28.3	28.3	1,131	141	1,272	
	Jooee (hamlet) .....	27.564	23.3	21.1	29.4	29.4	+936	101	2,344	
	Phoolinda (village) .....	26.230	23.6	23.3	23.3	21.1	+1,305	122	3,771	
	Chunda (tent) .....	25.468	23.9	29.897	28.3	28.3	4,620	465	4,620	
	Chunda-Khal. ....	25,009	16.7	15.0	25.468	23.9	+436	35	5,090	
	Danda Mundee (Kheema Nund's house) .....	27.089	20.3	29.93	28.9	28.9	2,555	268	2,823	
	Chumee-Khal. ....	25.670	13.3	12.2	27.098	20.3	+1,377	95	4,295	
	Déosa, 30 ft. above village .....	25.575	23.3	23.3	28.3	28.3	4,071	449	4,520	
	Tent in the wood .....	25.894	25.6	25.6	28.9	28.9	3,745	435	4,180	
	Doarvee-Khal .....	24.764	12.8	25.894	25.6	25.6	+1,095	89	5,364	
	Bikhet Ford, Nyar R. ....	28.164	23.9	25.814	25.6	25.6	-2,280	235	1,165	
	Do. Mango tree .....	28.051	23.3	29.912	28.9	28.9	1,646	183	1,829	
	Do. village .....	27.890	26.1	25.6	28.3	28.3	+51	3	1,882	



Altitudes of Places and Stations in Kumaon, deduced from Barometrical Observations.

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		Thermometers.		Barometer.	Thermometers.						
		Barometer, Attached.	Detached, Centigrade.		Barometer, Attached.						Detached, Centigrade.
420	Kuthoolie (village) . . . . .	25-372	16-1	29-87	28-9	28-9	4,186	403	4,680	(a.) C. O. at Kuthoolie.	
	Goarkeea-Khal . . . . .	24-152	18-9	25-404	16-7	16-7	+1,328	98	6,135	(a.)	
	Boonga (tent) . . . . .	26-130	18-9	29-765	28-3	28-3	3,345	337	3,756	(a.)	
	Soar-Khal . . . . .	24-475	15-6	26-255	28-3	28-3	+1,763	164	5,721	(a.) C. O. at Boonga.	
	Seemult (village) . . . . .	25-624	22-2	29-6	15-6	15-6	-1,161	90	4,445	(a.) C. O. at Soar-Khal.	
	Publee (tent) . . . . .	24-220	21-7	29-744	28-3	28-3	5,320	567	5,887	See No. 448.	
	Murora, Bidolee (between villages) . . . . .	25-77	27-2	29-802	29-4	29-4	3,778	456	4,234		
	Tent 100 ft. above Tal (village) . . . . .	25-69	22-2	29-87	27-8	27-8	3,899	417-5	4,316		
	Rultum (village) . . . . .	25-058	8-9	25-771	22-2	22-2	+662	42-56	5,035	C. O. tent near Tal (a.)	
	Koodh kee Séra Ghat . . . . .	26-835	12-8	25-771	22-2	22-2	-1,184-8	23-7	3,108	Do. (a.)	
	Pang (Kumeen's house) . . . . .	25-420	21-1	29-854	28-3	28-3	4,152	423-6	4,667	(a.)	
	Pinanee (village) . . . . .	24-55	23-3	29-875	28-9	28-9	5,086-5	566-4	5,653	(a.) C. O. at Pinanee.	
	Boorkhila-Khal . . . . .	24-512	13-9	24-626	23-3	23-3	+72	5-5	5,732	Do. do.	
	Ookal (village) . . . . .	25-429	19-4	24-626	23-3	23-3	857	76-96	4,700	(a.)	
	Sunee (25 feet above village) . . . . .	25-663	28-9	29-780	29-4	29-4	3,874	483	4,444	(a.) C. O. at Sunee.	
	Seewala (village) . . . . .	24-52	18-3	25-663	28-9	28-9	+1,132	115-6	5,717	(a.)	
	Singar Déo ke Séra . . . . .	26-548	32-2	29-772	30	30	2,998-5	398-08	3,465	{(a.) C. O. camp near Mura.	
430	Sookhra (village) . . . . .	24-913	25-5	25-781	27-8	27-8	+881	95	5,229	{(a.) C. O. camp near Mura.	
	Oolee (village) . . . . .	25-208	17-2	25-782	14-4	12-8	+602	36-2	4,884	{(a.) Do. See No. 418.	
	Than (village) . . . . .	25-207	17-2	25-782	14-4	12-8	+603	36-2	4,886	{(a.) Do.	
	Rutkote (village) . . . . .	25-686	30	29-82	29-5	29-5	3,891-5	487-6	4,379	{(a.) Do.	
	Boonga (village) . . . . .	26-000	26-1	26-226	28-3	28-3	+214	24-5	3,999	{(a.) C. O. at Boonga camp.	
	Water mill on Nyar R. . . . .	26-314	18-3	26-226	18-9	17-8	-91	7	3,655	{(a.) Do. See No. 414.	
	Nae (village) . . . . .	25-363	15-5	26-226	18-9	17-8	+854	58-46	4,686	{(a.) Do.	

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		Thermometers.		Barometer.	Thermometers.					
		Barometer.	Attached. Centi grade.			Detached. Centi grade.	Attached. Centi grade.	Detached. Centi grade.		
440	Doongree (village).....	25.604	20.5	18.9	29.708	27.2	27.2	3,838	377.2	4,299 (a.)
	Dang (village).....	25.774	26.7	26.7	29.716	27.8	27.8	3,702	429.76	4,214 (a.)
	Mulound (village).....	25.198	15.5	15.5	25.774	26.7	26.7	+531	47.84	4,805 (a.)
	Khundgaon (village).....	25.300	19.5	18.3	25.774	26.7	26.7	+445	40.5	4,710 (a.)
	Bunas (village).....	25.214	12.8	12.8	24.330	21.7	21.7	-975	72.24	4,819 (a.)
	Naor (45 ft. above the village).....	23.945	18.9	18.9	29.770	29.4	29.4	5,619	578.4	6,197 (a.)
	Burkth (village).....	24.082	17.2	16.7	24.065	18.9	18.9	-27	1.42	6,168 (a.)
	Tent near Sont.....	23.765	22.2	22.2	29.797	30.6	30.6	5,850	660	6,640 (a.)
	Sont (village).....	23.930	19.4	18.9	23.748	20.5	19.4	205	15.3	6,416 (a.)
	Koocholee (village).....	23.337	22.2	22.2	29.754	31.4	31.4	6,282	718.24	7,000 (a.)
450	Putee-Khal.....	22.768	17.8	16.7	23.456	22.2	22.2	+753	62.08	7,832 (a.)
	Kirsal (the Punchukee).....	24.944	21.7	21.7	29.754	31.4	31.4	4,544	514.1	5,159 (a.)
	Tent 35 ft. above Puhlee (2d observation)	24.400	23.3	23.3	29.754	31.4	31.4	5,127	597.87	5,839 (a.)
	Silolee (village), Choprakot Purguna.	25.000	27.8	27.8	29.754	31.4	31.4	4,517	571.28	5,190 (a.)
	Molka-Khal.....	23.385	16.1	14.5	29.77	31.7	31.7	6,209	612.15	6,958 (a.)
	Kolee (village).....	25.807	26.1	26.1	29.77	31.7	31.7	3,693	456.62	4,233 (a.)
	Doongree (village).....	25.030	26.1	25	29.77	31.7	31.7	4,493	543.36	5,137 (a.)
	Goar (village), 1st.....	24.524	24.5	24.5	29.77	31.7	31.7	5,014	601.34	5,728 (a.)
	Ridge between Doongree and Goar...	23.506	18.9	18.3	24.524	24.5	24.5	+1,076	98.44	6,926 (a.)
	Nurkot (deserted village).....	27.168	35.	35.	29.77	31.7	31.7	2,401	339.66	2,795 (a.)
	Lolee (village).....	26.096	21.1	20.	29.77	31.7	31.7	3,377	371.52	3,823 (a.)
	Chutoora (20 ft. below the village)....	25.862	31.7	31.7	29.777	31.7	31.7	3,673	497.69	4,254 (a.)



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		Barometer.	Thermometers. Attached. Detached. Centigrade.	Barometer.	Thermometers. Attached. Detached. Centigrade.					
460	Nowasoo (village) .....	25.028	23.3	23.3	29.777	0	31.7	0.12	4,484	(a.)
	Pokree (village) .....	25.314	26.7	26.7	29.777	31.7	31.7	0.25	4,205	(a.)
	Goar (24) 30 ft. below village .....	24.986	28.9	28.9	29.777	31.7	31.7	0.14	4,556	(a.)
	Bodeesoo (village) .....	24.836	28.9	28.9	24.986	28.9	28.9	0.04	+154	(a.)
	Bhynskot (30 ft. above village) .....	25.536	30.5	30.5	29.758	32.2	32.2	0.09	3,977	(a.)
	Korkee (village) .....	25.000	16.7	16.7	25.536	30.5	30.5	0.09	+482	(a.)
	Koitha (village) .....	25.444	19.5	18.3	25.536	30.5	30.5	0.56	+37	(a.)
	Bhutolee (village) .....	25.686	23.3	21.7	25.536	30.5	30.5	0.37	-190	(a.)
	Boogancee (village) .....	26.278	33.3	33.3	29.758	32.2	32.2	0.07	3,246.5	(a.)
	Dewulgurh Temple .....	25.874	21.7	19.5	26.278	33.3	33.3	0.60	+344	(a.)
	Soomaree Hill .....	25.228	28.3	23.3	26.278	33.3	33.3	0.53	-171	(a.)
	Juletha (village) .....	25.664	22.8	21.7	25.228	28.3	28.3	0.28	-174	(a.)
470	Khooee (45 ft. above village) .....	26.772	26.7	26.7	29.758	32.2	32.2	0.29	2,727	(a.)
	Paoree Bungalow (10 days mean) .....	24.872	26.7	26.7	29.672	30.9	30.9	0.21	4,577	(a.)
	Do. (10 do.) .....	24.806	25.5	25.5	29.588	31.3	31.3	0.29	4,563	(a.)
	Do. (10 do.) .....	24.790	25.5	25.5	29.625	30.8	30.8	0.25	4,615	(a.)
	Do. (10 do.) .....	24.700	22.8	22.8	29.722	29.2	29.2	0.31	4,790	(a.)
	Do. (15 do.) .....	24.704	23.3	23.3	29.673	30.8	30.8	0.37	4,737.5	(a.)
	Do. (16 do.) .....	24.721	23.3	23.3	29.645	29.5	29.5	0.30	4,701.5	(a.)
	Do. (15 do.) .....	24.745	23.3	23.3	29.717	30.3	30.3	0.33	4,736	(a.)
	Do. (16 do.) .....	24.693	22.2	22.2	29.566	30.3	30.3	0.38	4,652	(a.)
	Do. (15 do.) .....	24.730	21.7	21.7	29.619	29.4	29.4	0.38	4,661	(a.)
	Do. (15 do.) .....	24.812	20.3	20.3	29.776	30.6	30.6	0.53	4,752	(a.)
480	Do. (15 do.) .....									
	Do. (15 do.) .....									
	Do. (15 do.) .....									
	Do. (15 do.) .....									
	Do. (15 do.) .....									

Best barometers. See Nos. 322, 400, and 522.

C. O. at Bhynskot.  
Do. do.  
Do. do.

C. O. at Bhutolee.  
Do. do.  
See No. 210.  
C. O. at Soomaree Hill.

Do.  
Do.  
Do.  
Do.  
Do.  
Do.

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		Barometer.	Thermometers. Attached, Detached, Centi. grade.	Barometer.	Thermometers. Attached, Detached, Centi. grade.					
	Mean of the above.....	..	° ..	° ..	° ..	..	..	..	5,238	{ Best barometers. Mean of another month's observations, by my assistant, 5,270 feet.
	Sreenugur (the Bungalow) .....	27.948	30°	24.685	20.6	0.06	-3,186	344.08	1,708	C. O. at Paoree Bungalow.
	Do. (same observation compared with Calcutta) .....	27.948	30°	29.75	31.1	0.06	1,623	210.45	1,833	See Nos. 212 and 321.
	Mulétha (village) .....	27.818	30°	28.9	18.3	0.37	-3,089	309.16	1,839	C. O. at Paoree.
	Banga (village) .....	26.311	27.8	29.75	29.5	0.09	3,192	391.82	3,584	
	Teargaon (village) .....	25.964	23.3	29.75	29.5	0.32	3,515	396.	3,911	
	Chundurbudnee (tent) five days.....	23.318	19.5	29.797	28.9	0.44	6,340	653.4	6,993	
	Do. (tent) three days.....	23.306	20°	24.765	18.9	0.05	+1,587	129.98	6,955	
	Churdurbudnee Temple .....	23.024	15.6	23.399	18.9	0.15	+405	29.24	7,408	C. O. at Paoree.
	Nagnee-Danda.....	24.23	15.5	24.736	17.2	0.08	+520	33.	5,801	{ C. O. at tent. 7,408 is the mean altitude.
	Hoonkot Peak .....	24.96	18.3	24.759	17.8	0.02	-209	13.76	5,015	C. O. at Paoree.
	Deoprag (rope bridge) .....	28.343	26.1	29.79	29.5	0.19	1,280	152.9	1,433	Do.
	The same compared with Paoree.....	28.343	26.1	24.800	18.3	0.39	-3,439	326.34	1,473	C. O. at Paoree.
	Kapur (village) .....	26.700	26.1	24.777	21.7	0.22	-1,925	196.	3,117	Do.
	Confluence of Nyar R. with Ganges R. ....	28.45	27.8	24.794	19.4	0.42	-3,540	356.36	1,342	Do.
	Bhualdoo (village) .....	26.340	24.5	24.804	19.5	0.25	-1,540	145.2	3,553	Do.
	Deesee (village) .....	26.345	26.1	24.833	18.9	0.36	-1,502.5	144.	3,591	Do.
	Dharee (village) .....	25.58	21.7	24.721	17.2	0.22	-752	62.08	4,424	Do.
	Bilkhet (village) .....	28.007	24.5	24.83	17.2	0.18	1,696.5	187.92	1,894	Do.
	Tent near Buchelee village .....	26.158	22.8	24.861	15.	0.39	-1,285	103.95	3,849	Do.
	Dhour-Boonga Fort .....	24.736	15°	26.208	21.7	0.6	+1,472	106.47	5,428	Do. at Buchelee.

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		Thermometers.		Barometer.	Thermometers.						
		Attached.	Detached.		Barometer.						Attached.
		Barometer.	Centi grade.		Centi grade.						
510	Bhutgaon Temple .....	25.540	20.°	20.°	24.840	13.9	13.9	— 693	50.7	4,494	C. O. at Paoree.
	Bhudear Ford, Nyar R. ....	27.956	11.7	10.°	25.540	20.°	20.°	— 2,398	153.°	1,943	Do. at Bhutgaon Temple.
	Purootee (45 ft. above the village) . . .	25.392	17.2	17.2	24.845	13.3	13.3	— 548	34.96	4,655	Do. at Paoree.
	Dang (50 ft. below village) . . . . .	25.960	21.1	21.1	24.878	12.8	12.8	— 1,067	76.05	4,095	Do. do.
	Simtolee (50 ft. above village) . . . . .	24.736	13.9	13.9	24.786	12.8	12.8	+58	2.68	5,299	Do. do.
	Lumkhunee Peak. ....	24.823	19.5	18.3	24.850	13.3	13.3	+61	3.16	5,302	Do. do.
	Oophuraeen Peak. ....	25.541	21.7	21.1	24.823	19.5	18.3	— 732	61.07	4,509	Do. at Lumkhunee P.
	Gungolee Ghat on Nyar R. (ford) . . .	27.38	11.7	9.4	24.856	10.°	10.°	— 2,512	104.76	2,621	Do. at Paoree.
	Mason (village) . . . . .	26.688	22.2	22.2	24.858	13.3	13.3	— 1,805	136.29	3,296	Do. do.
	Punchoor Temple. ....	24.608	13.3	13.3	24.807	12.8	12.8	+212	11.7	5,462	Do. do.
	Durasoo (village) . . . . .	25.236	20.°	20.°	24.838	13.3	13.3	— 380	26.56	4,831	Do. do.
	Guwanee (village) . . . . .	25.852	21.1	21.1	24.872	13.3	13.3	— 966	70.52	4,201	Do. do.
	Gooradour-Khal. ....	24.142	11.1	9.5	24.888	13.9	13.9	+779	38.61	6,056	Do. do.
	Deba (camp) . . . . .	22.714	10.°	10.°	24.855	12.2	12.2	+2,336	111.°	7,685	Do. do.
	Do. do. ....	22.692	11.7	11.1	24.820	12.8	12.8	+2,329	117.81	7,685	Do. do.
	Deba Temple . . . . .	21.868	12.8	12.8	24.868	12.8	12.8	+3,350	183.04	8,771	Do. do.
	520	Do. do. ....	21.868	12.8	12.8	30.055	25.°	25.°	8,222.5	663.39	8,886
Ghuneea-Khal . . . . .		24.100	13.9	12.2	24.876	11.7	11.7	+837	42.84	6,118	Do. do.
Tulaen village on Lukhor R. ....		26.093	16.9	16.9	24.853	11.1	11.1	— 1,239	74.2	3,925	Do. do.
Liskot-Khal . . . . .		23.573	10.5	8.9	24.842	10.5	10.5	+1,366	56.26	6,650	Do. do.
Paoree Bungalow (thirty days mean). .		24.781	18.9	18.9	29.833	28.9	28.9	4,782	487.56	5,270	{ See Nos. 322, 400, and Nos. 472 to 481 inclusive.
Bohwan Debee's Temple. ....		25.518	17.2	17.2	30.082	22.8	22.8	4,258	364.°	4,622	
Bunduran (village) . . . . .		28.212	22.2	22.2	30.05	22.2	22.2	1,645	155.4	1,800	
Mohan (30 ft. below the village) . . . .	28.528	20.5	20.5	30.05	22.2	22.2	1,346	121.41	1,467		
	Dhekulee Guard Room . . . . .	28.842	26.7	26.7	30.068	22.8	22.8	1,105	116.09	1,221	

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		Thermometers.		Thermometers.							
		Barometer.	Centigrade.	Attached.	Detached.	Barometer.	Centigrade.	Attached.	Detached.		
530	Chilkeea Mundee.....	28.992	26.1	26.1	22.8	22.8	974	102.48	1,076	{ See Nos. 139 to 145 inclusive.	
	Huldooa .....	29.304	21.7	21.7	23.3	23.3	672.5	65.25	738		
	Kasheepoor Bungalow (three days)...	29.297	21.7	21.7	23.3	23.3	652	63.	715		
	Rampoor (city) .....	29.45	22.2	22.2	23.3	23.3	499	47.67	547	See No. 594.	
	Peleebheet (twelve days mean) .....	29.464	18.3	18.3	21.7	21.7	516.5	44.	560.5		
	Bundara .....	29.312	26.1	26.1	22.8	22.8	595	61.	656		
	Bilchree Mundee .....	29.222	25.5	25.5	22.8	22.8	672	69.89	742	C. O. at Choonapanee.	
	Choonapanee .....	28.446	23.9	23.9	23.9	23.9	1,361	138.62	1,500		
	Tinla Fort .....	26.158	13.3	11.7	28.474	11.7	10.	2,219	102.6		3,821
	Kela Ghat .....	27.856	26.7	26.7	29.96	25.1	25.1	1,907	209.79		2,117
	Budolee .....	26.122	18.9	18.9	29.99	25.1	25.1	3,571	336.6		3,908
	Kundulgaon (30 ft. below village)...	24.844	15.5	15.5	29.97	26.7	26.7	4,819	434.66		5,254
540	Lohoo-Ghat (Capt. McHarg's house) three days .....	24.507	12.2	12.2	29.94	25.5	25.5	5,148	413.6	5,562	C. O. at Lohoo Ghat. (G. 6,742.)
	Phurka (Bungalow).....	24.174	10.	10.	29.84	27.2	27.2	5,397	429.66	5,827	
	Fort Hastings .....	23.808	6.7	5.5	24.438	12.2	12.2	6,352	26.04	6,240	
	Deo-Dhoora (Bungalow) .....	23.402	7.2	7.2	29.964	24.5	24.5	6,352	428.18	6,780	C. O. at Tent. (G. 3,961.) See No. 90.
	Darnee (tent) .....	25.678	15.5	15.5	29.964	24.5	24.5	3,976	340.	4,316	
	Darnee (village).....	25.416	8.9	7.2	25.682	12.8	12.8	4,250	10.	4,576	
	Jak (80 ft. above village) .....	24.526	15.5	15.5	30.09	22.8	22.8	5,290	433.92	5,724	
	Hawal Bagh (Mr. Trail's house) six days .....	26.083	22.2	22.2	29.972	26.7	26.7	3,599	377.3	3,976	(G. 3,961.) See No. 90.
	Dhamus (village).....	25.384	23.3	23.3	29.99	28.3	28.3	4,320	477.3	4,797	
	Doba (50 ft. below village).....	26.034	25.	25.	29.97	29.5	29.5	3,646	152.32	3,798	
	Munursa (100 ft. below village) .....	26.444	25.	25.	30.02	28.3	28.3	3,288	372.4	3,660	

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		Barometer.	Thermometers.	Barometer.	Thermometers.						
			Attached.		Detached.					Attached.	Detached.
			Centi grade.		Centi grade.						
550	Nougaon (village).....	26.588	27.2	27.2	30.05	29.5	29.5	3,178	384.883,563	C. O. at Nougao.	
	Kankur Ghat Tree.....	26.900	27.2	27.2	26.588	27.2	27.2	-303	32.643,227		
	Boojan (30 ft. below village).....	27.206	27.8	27.8	30.06	28.9	28.9	2,594	314.132,908		
	Punt kee Peepul.....	27.458	27.8	27.8	30.04	28.9	28.9	2,336	283.2,619	C. O. at tent. (G. 5,073.)	
	Dubra (village).....	28.124	28.3	28.3	29.97	29.5	29.5	1,650	202.3 1,852		
	Khyralee Peepul Tree.....	28.196	30.5	30.5	29.96	28.9	28.9	1,591	201.961,793		
	Kath kee Nao (tent) 4 days.....	25.477	25.5	25.5	29.895	29.5	29.5	4,146.5	486.754,633	C. O. at tent. (G. 6,428.)	
	Kath kee Nao (the fort).....	25.216	18.3	16.7	25.492	20.5	18.3	+272	20.4,925		
	Khutolee (village).....	26.136	25.5	25.5	29.92	30.5	30.5	3,497	412.5 3,910		
	Phulsoñ (40 ft. below village).....	25.720	26.7	26.7	29.90	30.5	30.5	3,904	477.624,382	C. O. at tent. (G. 6,428.)	
	Cheoonnee.....	25.496	28.3	28.3	29.86	31.1	31.1	4,103	519.754,623		
	Tent near Choumoonh Temple (two days)	24.199	26.1	26.1	29.84	30.5	30.5	5,437	656.6 6,094		
560	Choumoonh Temple.....	23.904	18.3	17.2	24.106	18.3	17.2	+219	15.486,328	C. O. at Pujéna tent.	
	Jyna (village).....	24.664	26.1	26.1	29.83	30.5	30.5	4,931	597.135,528		
	Mundhlaot (village).....	25.418	28.3	28.3	29.83	30.5	30.5	4,159	523.324,082		
	Poonolee (village).....	24.772	26.1	26.1	29.80	30.5	30.5	4,793	580.155,373	C. O. at Butoulelea. (G. 6,599.)	
	Pujéna (100 ft. above village).....	25.438	23.9	23.9	29.860	28.9	28.9	4,151	467.284,618		
	Shér Temple.....	24.520	15.5	13.9	25.486	22.8	21.1	+967	71.75 5,657		
	Gadtee (30 ft. above village).....	25.096	22.2	22.2	29.87	28.3	28.3	4,507	493.445,000	{ C. O. at Butoulelea. (G. 6,599.) { (G. 6,489.) See Nos. 69 and 85. See No. 733.	
	Butoulelea.....	24.268	22.8	22.8	29.88	28.9	28.9	5,388	593.4 5,981		
	Réonee Temple.....	23.672	18.3	16.7	24.198	21.1	21.1	+559	45.366,586		
	570	Kaleemuth Tree.....	23.780	18.9	18.3	29.806	30.5	30.5	5,823	607.566,431	{ C. O. at Butoulelea. (G. 6,599.) { (G. 6,489.) See Nos. 69 and 85. See No. 733.
		Bafalee Seera (30 ft. below village)....	26.105	31.1	31.1	29.87	31.1	31.1	3,511	466.5 3,977	
		Sooreh Temple (at tent 40 ft. below) ..	25.872	29.5	29.5	29.76	30.5	30.5	3,643	463.4,111	



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		Thermometers.		Thermometers.								
		Barometer Attached.	Detached. Centigrade.	Barometer Attached.	Detached. Centigrade.							
600	Bareilly (fourteen days).....	29.476	17.2	17.2	29.986	18.9	18.9	438	32	470	{ This observation from Mr. Tate's Field Book. Do. See No. 531. Do. See No. 133.	
	Péleebheet (three days).....	29.482	18.3	18.3	30.04	20.	20.	479	38	517		
	Nauknuth (two days).....	29.402	18.9	18.9	30.11	20.5	20.5	612	51	663		
	Kaldoonga, (village, 50 ft. above Gha- gra R. ....	28.932	23.9	23.9	30.07	21.7	21.7	1,017	98.1	1,115		
	Dhurum Ghat, on Kalee R. (?).....	28.600	22.8	22.8	29.93	26.1	26.1	1,167	122.1	1,289	Do.	
	Joola Ghat, ditto.....	28.276	23.9	23.9	30.09	22.8	22.8	1,627	161.1	1,788	Do.	
	Junction of Goree and Kalee Rivers...	28.01	22.8	22.8	30.02	27.2	27.2	1,782.5	190.1	1,972	Do.	
	Pethora Gurh.....	24.813	20.	20.	30.05	29.5	29.5	4,941	521.5	4,62	Do.	
	Ram Ghar (store room).....	25.190	21.1	21.1	29.87	29.5	29.5	4,397	476.4	873	Do.	
	Tamlee Popul Tree.....	26.055	18.3	18.3	29.97	26.7	26.7	3,604	346.3	950	Do.	
	Bihm Deo (guard room) two days....	29.208	19.5	19.5	30.06	22.8	22.8	733	65	798	Mr. Tate's observations end.	
	Dharee (village).....	27.855	28.3	27.2	29.97	30.6	30.6	1,895	234.2	129	(a.) C. O. at Dharee.	
	Rope Bridge on Ganges R. near do....	27.920	26.7	25.6	27.762	27.8	27.2	153	41	969		
	Bansee (village).....	26.554	24.4	23.9	29.97	29.4	29.4	3,128	354.3	482		
	610	Doongra Rice Fields.....	26.456	24.4	23.9	29.97	29.4	29.4	3,224	367.3	591	(a.) C. O. at Bansee.
		Choura Khal.....	25.104	16.1	14.4	26.580	16.1	14.4	+1,459	91.5	993	
		Kanda (village).....	26.648	25.6	25.	29.94	29.4	29.4	3,015	351.3	366	
Ghéngur Khal, or Mol Khal.....		25.030	17.8	16.7	26.684	25.6	23.9	+1,628	140.5	169	(a.) C. O. at Kanda.	
60 ft. above junction Gudhoollee and Mundagnee Rivers.....		27.527	26.1	26.1	29.96	29.4	29.4	2,190	259.2	449	See No. 219.	
20 ft. below Agstumondee Temple ...		27.428	23.3	23.3	29.98	29.4	29.4	2,286	255.2	541		
	100 feet below Kundara.....	25.898	23.9	22.8	29.96	29.4	29.4	3,768	418.4	186	(a.) C. O. at Naluhputunt.	
	Naluhputun (tent).....	25.192	21.7	21.7	29.96	28.9	28.9	4,479	483.4	962		
	Do. (station).....	24.890	19.4	18.9	25.250	20.	20.	+371	315	372		





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		Thermometers.		Thermometers.								
		Barometer, Attached.	Detached, Centigrade.	Barometer, Detached.	Centigrade.							
640	Gopésur Temple.....	25.392	15.6	13.9	25.318	15.6	15.6	..	~75	4	4,807	{ (a.) C. O. at Tent. See Nos. 242 and 293.
	Peepulkotee (Peepul Tree).....	25.841	17.8	17.8	30.11	25.6	25.6	.042	3,942	365	4,307	See Nos. 244 and 290.
	Doongree (village).....	25.082	18.3	17.8	30.11	26.7	26.7	.042	4,717	448	5,268	(a.) See No. 291.
	Junction of Birhei Gunga.....	26.612	15.6	14.4	25.830	16.1	16.1	.003	-780	50	3,460	C. O. at Peepulkotee.
	Bydana (Peepul Tree).....	27.354	18.9	18.9	30.04	25.0	25.0	.034	2,379	221	2,652	(a.)
	Kurn Prag Tent (about 50 ft. above Spar Bridge).....	27.512	17.2	17.2	30.015	24.4	24.4	.040	2,231	200	2,480	(a.) See Nos. 165 and 149.
	Notee Temple.....	24.752	12.8	12.8	30.03	23.9	23.9	.055	4,979	390	5,369	See No. 586.
	Upper Pindoolnee (30 ft. below village).....	23.909	13.9	12.8	30.02	23.9	23.9	.048	5,878	459	6,337	(a.)
	Koocholee (village).....	23.462	15.6	13.9	30.05	23.9	23.9	.039	6,405	516	7,059	(a.)
	Ootegudhree-Khal.....	21.368	3.9	3.9	23.392	15.6	13.9	.050	+2,296	87	9,489	(a.)
	Murora (about 100 ft. below village).....	24.152	16.7	16.7	30.06	23.3	23.3	.032	5,664	484	6,148	(a.)
	Chak-Khal.....	22.524	11.1	10.6	24.234	16.7	16.7	.025	+1,877	109	8,273	(a.) C. O. at Murora Tent.
650	Kunoor (lowest house).....	24.276	16.1	15.1	30.08	23.3	23.3	.035	5,549	467	6,016	See No. 332.
	Kunoor Thana.....	24.130	14.4	12.8	24.364	16.1	16.1	.008	+242	14	6,277	(a.) C. O. at Kunoor.
	Rundola Ghat on Saneer R. (or ford).....	25.324	4.4	3.3	24.364	16.1	16.1	.060	-1,069	44	4,881	(a.)
	Meldhar (tent about 200 ft. below village).....	24.676	17.8	17.8	30.07	22.8	22.8	.024	5,126	445	5,682	(a.)
	Lower Byrgaon (village).....	25.212	16.1	16.1	30.07	23.3	23.3	.036	4,554	384	5,037	(a.)
	Oopren-Khal.....	24.000	12.2	11.1	25.142	16.1	16.1	.019	+1,191	69	6,322	(a.)
	Chukurgaon (50 ft. below village).....	25.052	16.0	16.0	30.01	23.3	23.3	.036	4,669	390	5,059	C. O. at Byrgaon.
	Jooneea (40 ft. below village).....	24.110	16.1	15.6	30.025	22.8	22.8	.032	5,683	467	6,150	(a.)
	Do. Fort.....	23.568	5.6	3.3	24.156	15.6	14.4	.047	+590	21	6,773	(a.) C. O. at Tent.
	Masoori (about 80 ft. below village).....	25.538	20.0	18.9	30.10	22.8	22.8	.014	4,269	379	4,741	(a.)
	Muthela (40 ft. above Saneer R.).....	25.936	17.2	16.7	30.07	22.8	22.8	.029	3,824	321	4,145	(a.)
	Juwae (village).....	25.430	12.8	11.1	25.862	11.7	10.6	.006	+445	19	4,618	(a.) C. O. at Muthela Tent.
660	Sookhaee (village).....	25.482	12.8	11.7	25.862	11.7	10.6	.006	+392	19	4,564	(a.) Do.



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		Thermometers.		Barometer.	Thermometers. Attached. Detached.					
		Barometer.	Centigrade.							
690	Ghunsalee (25 ft. above village) .....	25.698	14.4	14.4	30.10	23.3	4,075	327	4,490	(a.)
	Tolee-Khal .....	25.266	14.4	14.4	25.628	14.4	+370	22	4,890	(a.)
	Bhumolee .....	25.602	15.0	13.9	30.08	23.3	4,157	331	4,578	(a.)
	Kothar .....	26.230	13.3	13.3	25.532	15.0	-712	41	3,810	(a.)
	Saor (about 60 ft. below village) .....	26.242	16.7	16.7	30.06	23.9	3,502	304	3,806	(a.)
	Keecha-Gurhee .....	23.974	10.0	10.0	30.08	23.9	5,840	423	6,388	(a.)
	Bursooree (30 ft. below village) .....	25.642	16.7	15.0	30.08	23.9	4,122	341	4,463	(a.)
	Oolna (30 ft. below village) .....	26.288	15.0	15.0	30.07	23.9	3,455	287	3,817	(a.)
	Murora Ghat on Nyar R. ....	28.448	13.9	13.3	26.218	15.0	-2,133	128	1,511	C. O. at Oolna.
	Ojargaon .....	26.282	17.2	17.2	30.05	23.9	3,455	303	3,833	(a.)
700	Bungaon .....	25.157	15.0	15.0	29.98	23.9	4,524	374	4,996	(a.)
	Bunsur-Khal .....	24.262	11.1	10.6	25.104	16.7	+860	50	5,924	C. O. at Bungaon.
	Musangaoñ (60 ft. above village) .....	25.732	13.3	13.3	29.97	23.9	3,918	311	4,314	(a.)
	Kanda .....	25.442	10.0	9.4	29.94	23.3	4,032	282	4,400	(a.)
	Kot .....	25.450	9.4	9.4	25.372	10.0	-83	3	4,312	C. O. at Kanda.
	Khola .....	25.078	10.0	10.0	29.95	23.3	4,557	325	4,980	(a.)
	Kuthoor .....	25.314	6.7	5.6	25.008	10.0	-335	11	4,627	C. O. at Khola.
	Sinna .....	25.632	12.8	12.2	30.00	22.8	4,049	303	4,439	(a.)
	Sulda (about 100 ft. below village) .....	25.662	13.9	13.9	30.10	21.7	4,117	313	4,519	(a.)
	Mujeen Temple .....	26.514	19.4	19.4	30.05	21.7	3,250	283	3,604	(a.)
710	Keark Temple .....	25.826	19.4	19.4	30.01	21.1	3,904	337	4,326	(a.)
	Kalofgaon .....	25.07	22.8	21.1	30.01	26.7	4,668	476	5,247	(a.)
	Putaoorea (on Kal-gudh R.) .....	24.67	21.7	20.0	30.01	26.7	5,081	508	5,700	(a.)
	Guderee (about 160 ft. below village) ..	25.004	22.8	21.7	30.02	27.2	4,741	497	5,343	(a.)
	Guderee-Khal .....	22.714	16.1	13.3	24.934	22.8	+2,396	179	7,965	C. O. at Guderee Tent.
	Chumnaon .....	25.38	20.0	20.0	30.06	27.8	4,369	445	4,910	(a.)
	Kanda .....	26.096	23.9	23.9	30.03	29.4	3,630	412	4,123	(a.)

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		Barometer.	Thermometers.	Barometer.	Thermometers.					
			Attached. Detached. Centigrade.		Attached. Detached. Centigrade.					
720	Kubura .....	26.854	20.°	30.°	28.3	28.3	2,844	292	3,199	(a.)
	Bralee .....	26.82	15.°	29.95	28.9	28.9	2,803	257	3,121	(a.)
	Kulwarce (upper houses of village) ..	25.62	20.6	29.86	27.8	27.8	3,953	409	4,449	(a.)
	Dang .....	26.096	20.°	29.96	27.8	27.8	3,558	363	3,999	(a.)
	Junction of Lunkhor and Nyar Rivers ..	26.714	13.3	30.08	20.°	20.°	-715	50	3,219	(a.)
	Parsolee (25 ft. above village) .....	26.20	20.°	30.08	26.1	26.1	3,567	350	3,995	(a.)
	Aoleth (50 ft. below village) .....	26.084	21.1	30.05	26.1	26.1	3,662	368	4,111	(a.)
	Khurgeth Peak .....	25.59	17.2	30.05	27.2	27.2	4,134	393	4,617	(a.)
	Junction of Nyr and Ramganga Rivers ..	27.81	18.3	29.99	27.2	27.2	1,920	186	2,148	(a.)
	Indola (60 ft. below village) .....	27.023	17.2	29.95	25.6	25.6	2,636	240	2,933	(a.)
	Sukneana (80 ft. below village) .....	25.468	17.2	29.87	27.8	27.8	4,100	394	4,584	(a.)
	Bikeea kee Syn .....	27.385	26.7	29.91	26.7	26.7	2,299	262	2,612	(a.)
	Junction of Khuton and Ramganga Rivers .....	27.174	25.°	29.82	28.3	28.3	2,404	271	2,728	(a.)
	Séonath Temple on Ramgunga R. ....	27.176	25.6	29.87	26.1	26.1	2,461	271	2,787	(a.)
730	Chour .....	25.617	20.6	29.77	27.2	27.2	3,880	397	4,362	(a.)
	Teopula (30 ft. below village) .....	27.076	25.°	29.85	29.4	29.4	2,518	294	2,868	(a.)
	Budhan (40 ft. below village) .....	24.966	23.3	29.86	28.9	28.9	4,635	517	5,235	(a.)
	Dhunguleea .....	24.86	22.8	30.02	30.°	30.°	4,877	552	5,538	(a.)
	Réonee Village (Byroob's Temple) ....	24.404	16.7	24.790	22.8	22.8	+377	32	5,955	(a.)
	Panslee Seera .....	26.406	28.3	30.03	30.°	30.°	3,342	402	3,817	(a.)
	Loth (40 ft. below village) .....	25.192	21.7	29.95	29.4	29.4	4,468	486	5,053	(a.)
	Byznath Temple .....	26.405	26.1	29.97	30.6	30.6	3,277	396	3,746	(a.)
	80 ft. above junction of Chiringa and Budhan Gurh (fort) .....	25.934	26.7	29.98	30.6	30.6	3,737	458	4,299	(a.)
	.....	22.492	20.°	29.985	30.6	30.6	7,437	805	8,242	(a.)
	.....									
	.....									
	.....									
	.....									

C. O. at Dang.

Near Masee.

(G. 2978.)

C. O. at Dhunguleea.

See No. 572.

(G. 3614.) See No. 79.